

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for February, 1895, is based on reports from 3,202 stations occupied by regular and voluntary observers. These reports are classified as follows: 148 reports from Weather Bureau stations; 35 reports from U. S. Army post surgeons; 2,345 monthly reports from State Weather Service and voluntary observers; 31 reports from Canadian stations; 96 reports through the Southern Pacific Railway Company; 531 marine reports through the cooperation of the Hydrographic Office, Navy Department, and "New York Herald Weather Service;" monthly reports from 16 U. S.

Life-Saving stations; monthly reports from local services established in all States and Territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

The WEATHER REVIEW for this month has been prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, acting chief of that division.

CHARACTERISTICS OF THE WEATHER FOR FEBRUARY, 1895.

The most prominent feature during February was the great area of high pressure and the attending cold wave that passed from Alberta on the 5th southward to Texas and eastward to the Atlantic coast on the 7th and 8th. A special bulletin was issued illustrating this storm and cold wave. This was followed by persistent cold weather. The average temperature

for February was the lowest on record over a greater portion of the Gulf and south Atlantic States. The snowfall was remarkably heavy in the Sierra Nevada, and also unusual in the Atlantic States. The total precipitation of rain and melted snow was below the average throughout the interior of the country. Two severe storms passed northeastward along the Atlantic coast.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers not reduced to standard gravity and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

During the current month the highest mean pressures have been confined to the north and east slopes of the Rocky Mountains. The extreme highest was 30.38 at Idaho Falls. The lowest mean pressures were in Maine and the Maritime Provinces of Canada. The extreme lowest was 29.64 at Sydney, C. B. I., and St. Johns, N. F.

As compared with the normal for February the mean pressure for the current month was deficient in Newfoundland, Nova Scotia, Quebec, Ontario, New England, and the middle Atlantic coast. With the exception of Yuma and San Diego it was in excess over the whole of the rest of the country. The maximum excess was 0.21 at Lander.

As compared with the preceding month of January the pressures reduced to sea level show a maximum rise of 0.25 at Tatoosh Island and Portland, Oreg., and a maximum fall of 0.32 at Sydney.

The systematic periodic diurnal variations of pressure are shown by the hourly means given in Table V.

AREAS OF HIGH PRESSURE.

The tracks of the centers of areas of high pressure are shown on Chart IV, which also gives the maximum pressure at the center at each date.

Of these areas the most remarkable is No. V, which first appeared on the 5th, p. m., in Alberta, and disappeared on the 9th, a. m., in Tennessee, the maximum central pressure was 31.38 on the 6th, a. m.; 31.32 on the 6th, p. m., and 31.18 on the 7th, a. m., in North Dakota. These are among the highest pressures on record, and undoubtedly represent very closely the maximum that is even temporarily possible in this region of the globe. At Havre the observer reported that the blizzard of February 5 was the worst on record in that vicinity. In this storm First Sergt. James Brown, of the Tenth Cavalry, was frozen to death. On the 7th, a. m., this area extended over the greater portion of the United States, Canada, and Mexico. By the 7th, p. m., the low area that had developed on the Atlantic coast assisted in drawing the cold air from the interior eastward over Florida which was visited by a cold wave of about the same severity as that of December, 1894. During the interval, 6-16th, a

ridge of high pressure extended from British Columbia south-eastward, and was the prevailing feature affecting the climate of the interior of the continent. After that date this ridge moved slowly southward affecting principally the Rocky Mountain plateau and Mexico, and was broken up by the 20th, although it subsequently partially reappeared and was again in full development on the 28th, a. m.

AREAS OF LOW PRESSURE.

The tracks of the centers of areas of low pressure are shown on Chart I, which also gives the minimum pressure at the center for each date.

The most interesting of these areas, considered as storms, are the following:

VI.—This apparently moved up the coast, passing between Bermuda and Cape Hatteras on the 3d and developed into a hurricane on the coast of Nova Scotia on the 4th and 5th.

IX.—This began as a small whirl on the coast of Texas in advance of the great area of high pressure. It moved eastward to the south Atlantic coast during the 6th and 7th, and developed rapidly as the cold air flowed in behind it over the warm Gulf Stream. It passed over Cape Hatteras on the 7th and Cape Cod on the 8th, and was a well-developed hurricane, central in Massachusetts, on the morning of the 8th, after which it began to break up, but subsequently passed east of Cape Breton and may have continued on the Atlantic Ocean.

XIII.—This appeared off the coast of northern California on the 11th and broke upon the coast of Oregon on the 13th, bringing heavy rain and snow to the Pacific States.

XIV.—The low area that frequently extends northward from the Gulf of California was prominent during this month from the 7th to the 9th, when the great area of high pressure, No. V, trended in a parallel direction from Alberta to Texas. This low area again became prominent on the 13th and 14th, while the same ridge of high pressure preserved nearly the same position as before along the Rocky Mountain range. Finally, on the 28th the same phenomenon was again repeated and the high area passed from British Columbia south and east, while a low area developed southward from southern California, Arizona, and New Mexico.

Movement of centers of areas of high and low pressure.

Number.	First observed.			Last observed.			Path.		Average velocities.	
	Date.	Lat. N.	Long. W.	Date.	Lat. N.	Long. W.	Length.	Duration.	Daily.	Hourly.
High areas.										
I.	1, a. m.	41	96	1, p. m.	33	99	600	0.5	.....	.....
II.	1, p. m.	46	100	4, a. m.	48	63	2,900	2.5	920	38.3
III.	1, p. m.	55	114	3, a. m.	53	102	800	1.5	533	22.2
III a.	3, a. m.	53	102	3, p. m.	41	94	1,000	0.5	.....	.....
III b.	3, a. m.	53	102	5, p. m.	50	83	1,400	1.5	933	38.9
IV.	2, a. m.	42	120	5, p. m.	41	116	800	2.5	320	13.3
V.	5, p. m.	52	114	9, a. m.	36	88	2,500	3.5	714	29.8
VI.	8, p. m.	52	110	12, p. m.	41	105	1,300	4.0	300	12.5
VII.	13, a. m.	53	113	20, p. m.	34	109	3,100	6.5	777	32.4
VII a.	30, p. m.	34	109	21, p. m.	41	112	600	1.0	600	25.0
VII b.	30, p. m.	34	109	22, a. m.	41	97	900	1.5	600	25.0
VIII.	21, p. m.	50	113	25, a. m.	36	80	3,500	3.5	871	36.3
IX.	23, p. m.	48	115	28, p. m.	54	108	1,200	5.0	240	10.0
X.	25, p. m.	49	86	28, p. m.	27	82	1,600	3.0	533	22.2
Sums.....							21,050	37.0	7,341	.....
Mean of 12 paths.....									612	25.5
Mean of 37.0 days.....									569	23.7
Low areas.										
I.	1, a. m.	27	97	3, a. m.	28	79	950	2.0	475	19.2
II.	1, p. m.	52	124	2, p. m.	51	121	300	1.0	300	8.3
III.	2, a. m.	37	71	3, a. m.	49	56	1,150	1.0	1,150	47.9
IV.	2, p. m.	40	106	3, a. m.	42	107	150	0.5	.....	.....
V.	3, p. m.	42	94	3, p. m.	46	79	850	1.0	850	35.4
VI.	2, a. m.	32	74	6, a. m.	47	55	1,550	4.0	387	16.1
VII.	4, a. m.	39	104							
VIII.	4, p. m.	51	123	5, p. m.	48	118	350	1.0	350	14.6
IX.	5, a. m.	29	97	9, a. m.	47	67	2,600	4.0	650	27.1
X.	5, p. m.	43	103	6, a. m.	35	100	300	0.5	.....	.....
XI.	9, a. m.	41	70	10, a. m.	48	55	900	1.0	900	37.5
XII.	10, p. m.	29	93	14, a. m.	48	54	2,650	3.5	737	31.3
XIII.	11, a. m.	49	127	13, a. m.	44	123	500	2.0	250	10.4
XIV.	15, a. m.	27	84	16, a. m.	35	76	800	1.0	800	33.3
XV.	15, p. m.	54	116	20, p. m.	45	56	2,900	5.0	580	24.2
XVI.	19, a. m.	53	117	23, a. m.	48	61	2,500	4.0	625	26.0
XVII.	18, p. m.	32	95	19, p. m.	32	82	800	1.0	800	33.3
XVIII.	20, p. m.	42	123	26, p. m.	47	58	4,400	5.5	800	33.3
XIX.	21, p. m.	28	100	22, a. m.	30	98	900	0.5	.....	.....
XX.	21, p. m.	51	98							
XXI.	25, p. m.	55	113	28, p. m.	47	78	1,750	3.0	583	24.8
XXII.	26, p. m.	44	64	28, p. m.	47	56	600	2.0	300	12.5
Sums.....							26,400	43.5	10,457	.....
Mean of 17 paths.....									615	25.6
Mean of 43.5 days.....									607	27.5

NORTH ATLANTIC METEOROLOGY.

[Pressure in inches and millimeters; wind force by Beaufort scale.]

OCEAN FOG IN FEBRUARY.

The limits of fog belts west of the fortieth meridian, as reported by shipmasters, are shown on Chart I by dotted shading. East of the fifty-fifth meridian fog was reported on 9 dates; between the fifty-fifth and sixty-fifth meridian on 3 dates, and west of the sixty-fifth meridian on 1 date. Compared with the corresponding month of the last seven years the dates of occurrence of fog east of the fifty-fifth meridian numbered 2 less than the average; between the fifty-fifth and sixty-fifth meridians 2 less than the average; and west of the sixty-fifth meridian 4 less than the average.

OCEAN ICE IN FEBRUARY.

The region in which Arctic ice was reported for the current month is shown on Chart I by crosses. The southernmost ice, also the easternmost (an iceberg noted on the 1st), was about 14° north of the average southern limit, and nearly 3° west of the average eastern limit of ice for February. Large quantities of heavy field ice were reported in N. 37° 01', W. 75° 38' on the 19th; an iceberg was observed 15 miles east of Cape

Race on the 25th. For the current month ice was reported only on 5 dates, the 1st, 3d, 16th, 19th, and 25th.

The following table shows the southern and eastern limits of the region within which icebergs or field ice were reported for February during the last 13 years:

Southern limit.			Eastern limit.		
Month.	Lat. N.	Long. W.	Month.	Lat. N.	Long. W.
February, 1883.....	42 01	52 46	February, 1883.....	46 10	45 44
February, 1884.....	42 00	50 00	February, 1884.....	46 50	43 45
February, 1885.....	41 50	51 12	February, 1885.....	47 53	42 00
February, 1886.....	46 10	47 15	February, 1886.....	48 00	44 47
February, 1887.....	40 00	48 00	February, 1887.....	46 26	41 50
February, 1888.....	44 50	45 06	February, 1888.....	44 59	45 08
February, 1889.....	45 25	48 00	February, 1889.....	45 35	48 00
February, 1890.....	41 12	50 12	February, 1890.....	44 30	35 30
February, 1891.....	44 20	48 00	February, 1891.....	44 23	44 59
February, 1892.....	47 25	47 55	February, 1892.....	49 05	46 30
February, 1893.....	45 11	48 56	February, 1893.....	46 20	46 40
February, 1894.....	44 28	48 50	February, 1894.....	47 30	44 40
February, 1895.....	45 24	47 18	February, 1895.....	45 24	47 18
Mean.....	43 53	48 44	Mean.....	46 34	44 22

TEMPERATURE OF THE AIR.

[In degrees Fahrenheit.]

The distribution of the monthly mean temperature of the air over the United States and Canada is shown by the dotted isotherms on Chart II; the lines are drawn over the high irregular surface of the Rocky Mountain plateau, although the temperatures have not been reduced to sea level, and the isotherms, therefore, relate to the average surface of the country occupied by our observers; such isotherms are controlled largely by the local topography, and should be drawn and studied in connection with a contour map.

The regular diurnal period in temperature is shown by the hourly means given in Table IV for all stations having self-registers.

The mean temperature is given for each station in Table II, but in Table I both the mean temperatures and the departures from the normal are given.

The monthly mean temperature published in Table I, for the regular stations of the Weather Bureau, is the simple mean of all the daily maxima and minima; for voluntary stations a variety of methods of computation is necessarily allowed, as shown by the notes appended to Table II.

As compared with the normal for February, the mean temperatures for the current month were decidedly in excess in Canada and the British Possessions generally, northern New England, the northern portion of the United States, and the whole Pacific coast as far south as San Diego. The ridge of greatest excess included the following: Minnedosa, 8.2; Walla Walla, 7.2; Spokane, 6.6; Qu'Appelle, 5.2; Edmonton, 5.0; Williston, 4.6; Father Point, 4.4.

Considered by districts, the mean temperatures for the current month show departures from normal temperatures as given in Table I. The greatest positive departure was northern plateau, 5.4. The greatest negative departures were: South Atlantic, 12.7; Key West, 7.9; east Gulf, 13.3; west Gulf, 12.2; Ohio Valley and Tennessee, 12.4.

The years of highest and lowest mean temperature for previous years in February are shown in Table I of the REVIEW for February, 1894. The mean temperature for February, 1895, was the lowest on record at regular Weather Bureau stations throughout the Atlantic and Gulf States and Mississippi and Ohio valleys.

The maximum and minimum temperatures of the current

month at regular stations of the Weather Bureau are given in Table I, which also gives the absolute maximum and minimum for the month during the entire period of Weather Bureau observations. As the corresponding years are also given in this table it is easy to ascertain whether any absolute maximum or minimum has occurred during the present year.

The greatest daily range of temperature and the extreme monthly range are given for each of the regular Weather Bureau stations in Table I, which also gives data from which may be computed the extreme monthly ranges for each station. The largest values among the greatest daily ranges were: Rapid City, 60; Havre, 56; Pueblo, 53. The smallest values were: Tatoosh Island, 11; Key West, 14. Among the extreme monthly ranges the large values were: Bismarck, 103; Huron, 101.

The accumulated monthly departures from normal temperatures since January 1 are given in the second column of the following table, and the average departures are given in the third column, for comparison with the departures of current conditions of vegetation from the normal conditions.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Total.	Average.		Total.	Average.
Northern plateau.....	+ 8.7	+ 4.4	New England.....	- 4.2	- 2.1
North Pacific.....	+ 3.4	+ 1.7	Middle Atlantic.....	-11.5	- 5.8
Middle Pacific.....	+ 2.2	+ 1.1	South Atlantic.....	-13.8	- 6.9
Southern Pacific.....	+ 1.7	+ 0.8	Key West.....	- 9.3	- 4.6
			East Gulf.....	-14.6	- 7.3
			West Gulf.....	-11.8	- 5.9
			Ohio Valley and Tenn....	-15.6	- 7.8
			Lower Lake.....	-10.6	- 5.3
			Upper Lake.....	- 6.4	- 3.2
			North Dakota.....	- 1.7	- 0.8
			Upper Mississippi.....	-10.5	- 5.2
			Missouri Valley.....	- 5.6	- 2.8
			Northern slope.....	- 3.8	- 1.9
			Middle slope.....	- 5.8	- 2.9
			Southern slope (Abilene).....	-13.8	- 6.9
			Southern plateau.....	- 1.8	- 0.9
			Middle plateau.....	- 3.2	- 1.6

The limit of freezing weather is shown on Chart VI by the isotherm of minimum 32° and the limit of frost by the isotherm of minimum 40°.

MOISTURE.

The quantity of moisture in the atmosphere at any time may be expressed by means of the weight contained in a cubic foot of air, or by the tension or pressure of the vapor, or by the temperature of the dew-point. The mean dew-points for each station of the Weather Bureau, as deduced from observations made at 8 a. m. and 8 p. m., daily, are given in Table I.

The rate of evaporation from a special surface of water on muslin at any moment determines the temperature of the wet-bulb thermometer, but a properly constructed evaporimeter may be made to give the quantity of water evaporated from a similar surface during any interval of time. Such an evaporimeter, therefore, would sum up or integrate the effect of those influences that determine the temperature as given by the wet bulb; from this evaporation the average humidity of the air during any given interval of time may be deduced.

It is much to be desired that one or more new series of measurements of evaporation, wind velocity, temperature,

and dew-point be made at high and low stations in instrument shelters similar to those used by the Weather Bureau, in order that a general empirical formula may be devised for use with the evaporimeter considered as an integrating hygrometer.

The sensible temperature experienced by the human body and attributed to the atmosphere depends not merely upon the temperature of the air, but equally upon the dryness and the wind. It would seem that the rapid evaporation from the body in dry, hot weather reduces the temperature of the layer of nerve cells at the surface of the skin. This reduction, or sensible coolness, is approximately proportional to the difference between the dry and wet bulb thermometers.

The resulting sensible temperatures are simply the temperatures of the wet-bulb thermometer as obtained by the whirling apparatus used in the shaded shelter, and correspond to the temperatures felt by persons standing in the shade of trees or houses, exposed to a natural breeze of at least 6 miles per hour. The temperature of the wet-bulb thermometer and

its depression below the dry bulb are the fundamental data for all investigations into the relation between human physiology and the atmosphere. In order to present a monthly summary of the atmospheric conditions from a hygienic and

physiological point of view, Table VIII has been prepared, showing the maximum, minimum, and mean readings of the wet-bulb thermometer at 8 a. m. and 8 p. m., seventy-fifth meridian time.

PRECIPITATION.

[In inches and hundredths.]

The distribution of precipitation for the month of February, 1895, as determined by reports from about 2,500 stations, is exhibited on Chart III. The numerical details are given in Tables I, II, and III. The precipitation was greatest, 8 to 10 inches, in the northwest corner of Washington, and least, averaging less than 1 inch, throughout the watersheds of the Ohio, Missouri, and Upper Mississippi.

The diurnal variation is shown by Table XII, which gives the total precipitation for each hour of seventy-fifth meridian time, as deduced from self-registering gauges kept at about 43 regular stations of the Weather Bureau; of these 37 are float gauges and 6 are weighing gauges.

The normal precipitation for each month is shown in the Atlas of Bulletin C, entitled "Rainfall and Snow of the United States, compiled to the End of 1891, with Annual, Seasonal, Monthly, and other Charts."

The current departures from the normal precipitation are given in Table I, which shows that precipitation was deficient over nearly the whole of the United States. It was, however, in excess in several small regions, viz: from Port Eads and the coast of Texas over central Texas, eastern New Mexico, Kansas, western Colorado, Nebraska, and South Dakota as far north as Pierre; in Montana, Assiniboia, and Alberta as far north as Edmonston; on the south Atlantic coast from Charleston to Jacksonville, and in isolated places such as Tatoosh Island, Carson City, Fresno, Father Point, Chatham, Titusville, and Key West.

The average departure for each district is also given in Table I. By dividing these by the respective normals the following corresponding percentages are obtained (precipitation is in excess when the percentages of the normal exceeds 100):

Above the normal: Key West, 152; northern slope, 141; middle slope, 181; Abilene (southern slope), 207.

Below the normal: New England, 28; middle Atlantic, 40; south Atlantic, 89; east Gulf, 62; west Gulf, 64; Ohio Valley and Tennessee, 24; Lower Lake, 41; Upper Lake, 50; North Dakota, 67; Upper Mississippi, 26; Missouri Valley, 39; southern plateau, 54; middle plateau, 92; northern plateau, 30; north Pacific, 56; middle Pacific, 54; southern Pacific, 39.

The years of greatest and least precipitation are given in the REVIEW for February, 1894. The precipitation for the current month was the least on record for the month of February at most regular Weather Bureau stations in the Atlantic States and Ohio Valley, Missouri, Arkansas, and Louisiana.

The total accumulated monthly departures from normal precipitation from the beginning of the year to the end of the current month are given in the second column of the following table; the third column gives the ratio of the current accumulated precipitation to its normal value.

Districts.	Accumulated departures.	Accumulated precipitation.	Districts.	Accumulated departures.	Accumulated precipitation.
	Inches.	Per ct.		Inches.	Per ct.
New England	- 3.10	62	South Atlantic	+ 1.50	119
Middle Atlantic	- 1.00	86	Key West	+ 2.10	156
East Gulf	- 2.30	80	Northern slope	+ 0.30	126
West Gulf	- 2.60	65	Middle slope	+ 0.30	130
Ohio Valley and Tennessee	- 2.40	73	Southern slope (Abilene)	+ 1.40	168
Lower Lakes	- 1.40	74	Middle plateau	+ 1.00	135
Upper Lakes	- 0.40	90	Middle Pacific	+ 0.80	106
North Dakota	- 0.20	84	South Pacific	+ 2.30	162
Upper Mississippi	- 1.80	53	Southern plateau	+ 0.00	100
Missouri Valley	- 1.20	54			
Northern plateau	- 1.40	68			
North Pacific	- 4.00	78			

Details as to excessive precipitation are given in Tables XIII and XIV.

The total snowfall at each station is given in Table II.

The accumulation of snow in the Sierra Nevada range on the route of the Central Pacific Railroad was very remarkable. The snow was 22 feet deep on the summit level at the beginning of the month, and drifts of 40 and 60 feet covered the fir trees on the mountain slopes. The heaviest snow was between Blue Canyon and Emigrant Gap, and snowslides were imminent. The map of normal distribution of annual snowfall seems to show that the maximum fall occurs along the Sierra opposite and a little north of San Francisco, as though the upper currents of air from the southwest, passing through the depression in the Coast Range near that city, carried the moisture northeastward to the neighborhood of Emigrant Gap.

SUNSHINE AND CLOUDINESS.

The quantity of sunshine, and therefore of heat, received by the atmosphere, as a whole, is very nearly constant from year to year, but the proportion received by the surface of the earth depends largely upon the absorption by the atmosphere, and varies with the distribution of cloudiness. The sunshine is now recorded automatically at 18 regular stations of the Weather Bureau by its photographic, and at 26 by its thermal effects. The results are given in Table XI for each hour of local, not seventy-fifth meridian, time. The cloudiness is determined by numerous personal observations at all stations during the daytime, and is given in the column of "average

cloudiness" in Table I; its complement or clear sky is given in the last column of Table XI.

COMPARISON OF SUNSHINE AND CLEAR SKY.

The sunshine registers give the duration of direct sunshine whence the percentage of possible sunshine is derived; the observer's personal estimates give the percentage of area of clear sky. It should not be assumed that these numbers should agree, and for comparative purposes they have been brought together, side by side, in the following table, from which it appears that, in general, the instrumental record of percentages of duration of sunshine is almost always larger than the observer's personal estimates of percentages of area

of clear sky; the average excess for January, 1895, is 5 per cent for photographic records, and 10 per cent for thermometric records. The details are shown in the following table:

Difference between instrumental and personal observations of sunshine for January, 1895.

Photographic stations.	Instrumental.	Personal.	Difference.	Thermometric stations.	Instrumental.	Personal.	Difference.
Denver, Colo.	78	85	18	Key West, Fla.	79	65	14
San Diego, Cal.	66	58	8	New York, N. Y.	66	38	28
Santa Fe, N. Mex.	66	55	11	Vicksburg, Miss.	66	50	16
Tucson, Ariz.	66	50	16	Norfolk, Va.	65	55	10
Kansas City, Mo.	57	55	2	St. Louis, Mo.	62	59	3
Bismarck, N. Dak.	51	40	11	San Francisco, Cal.	61	44	17
Dodge City, Kans.	51	50	1	Des Moines, Iowa.	58	52	6
Galveston, Tex.	50	51	-1	New Haven, Conn.	57	50	7
Savannah, Ga.	49	41	8	Baltimore, Md.	54	44	10
Eastport, Me.	44	36	8	Philadelphia, Pa.	54	38	16
Cincinnati, Ohio.	42	38	4	Portland, Me.	53	45	8
Memphis, Tenn.	40	40	0	Marquette, Mich.	51	27	24
Washington, D. C.	39	36	3	Wilmington, N. C.	51	47	4
Helena, Mont.	32	33	-1	Boston, Mass.	49	40	9
Cleveland, Ohio.	24	26	-2	Chicago, Ill.	46	42	4
Spokane, Wash.	24	18	6	Detroit, Mich.	46	37	9
Portland, Oreg.*	13	25	-12	New Orleans, La.	43	41	2
				Salt Lake City, Utah	43	30	13
				Atlanta, Ga.	42	39	3
				Louisville, Ky.	42	33	9
				Little Rock, Ark.	37	29	8
				Columbus, Ohio.	32	28	4
				Rochester, N. Y.	32	28	4
				Buffalo, N. Y.	29	20	9
				Seattle, Wash.	26	18	8
				Portland, Oreg.*	23	25	-2

The average excess for February, 1895, is 3 per cent for photographic records, and 12 per cent for thermometric records. The details are shown in the following table:

Difference between instrumental and personal observations of sunshine for February, 1895.

Photographic stations.	Instrumental.	Personal.	Difference.	Thermometric stations.	Instrumental.	Personal.	Difference.
Tucson, Ariz.	78	64	14	Baltimore, Md.	79	60	19
Santa Fe, N. Mex.	74	62	12	New York, N. Y.	79	51	28
San Diego, Cal.	68	66	2	Boston, Mass.	74	51	23
Washington, D. C.	68	61	7	St. Louis, Mo.	74	58	16
Cincinnati, Ohio.	64	65	-1	Detroit, Mich.	72	54	18
Denver, Colo.	62	51	11	New Haven, Conn.	72	59	13
Dodge City, Kans.	58	50	8	Norfolk, Va.	71	70	1
Helena, Mont.	57	54	3	San Francisco, Cal.	69	62	7
Savannah, Ga.	55	51	4	Chicago, Ill.	67	59	8
Memphis, Tenn.	54	53	1	Key West, Fla.	67	49	18
Salt Lake City, Utah*	50	37	13	Marquette, Mich.	67	33	34
Kansas City, Mo.	48	45	3	Philadelphia, Pa.	66	53	13
Eastport, Me.	48	42	6	Portland, Me.	64	46	18
Galveston, Tex.	47	52	-5	Des Moines, Iowa.	62	39	23
Spokane, Wash.	46	36	10	Atlanta, Ga.	61	53	8
Bismarck, N. Dak.	45	47	-2	Louisville, Ky.	57	51	6
Cleveland, Ohio.	45	47	-2	Columbus, Ohio.	56	50	6
Portland, Oreg.*	26	37	-11	Wilmington, N. C.	56	57	-1
				Little Rock, Ark.	54	41	13
				Salt Lake City, Utah*	54	37	17
				Buffalo, N. Y.	47	30	17
				Rochester, N. Y.	47	42	5
				Vicksburg, Miss.	45	42	3
				Seattle, Wash.	43	30	13
				New Orleans, La.	41	40	1
				Portland, Oreg.*	38	37	1

* Records kept by both registers.

WIND.

The prevailing winds for February, 1895, viz, those that were recorded most frequently at Weather Bureau stations, are shown in Table I.

The resultant winds, as deduced from the personal observations made at 8 a. m. and 8 p. m., are given in Table IX. These latter resultants are also shown graphically on Chart II, in connection with the isobars based on the same system of simultaneous observation; the small figure attached to each arrow shows the number of hours that this resultant prevailed, on the assumption that each of the morning and evening observations represents one hour's duration of a wind of average velocity; these figures (or the ratio between them and the total number of observations in this month) indicate the extent to which winds from different directions counterbalanced each other.

Maximum wind velocities of 50 miles or more per hour were reported at regular stations of the Weather Bureau as

follows (maximum velocities are averages for five minutes; extreme velocities are gusts of shorter duration, and are not given in this table):

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Amarillo, Tex.	6	56	n.	Detroit, Mich.	20	60	sw.
Do	7	52	n.	Eastport, Me.	8	73	e.
Block Island, R. I.	7	60	e.	Hatteras, N. C.	8	57	nw.
Do	8	65	w.	Do	9	50	nw.
Fort Canby, Wash.	10	50	e.	Kittyhawk, N. C.	8	56	nw.
Do	11	68	e.	Oklahoma, Okla.	6	52	n.
Do	12	64	e.	Tatoosh Island, Wash.	10	58	e.
Do	15	73	se.	Titusville, Fla.	15	72	e.
Do	16	71	se.	Woods Holl, Mass.	5	57	nw.
Chicago, Ill.	20	51	sw.	Do	8	70	sw.

No severe local storms were reported during February.

ATMOSPHERIC ELECTRICITY.

The statistics relative to auroras and thunderstorms are given in Table X, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

The dates on which reports of thunderstorms for the whole country were most numerous were: 1st, 11; 2d, 6; 22d, 9; 25th, 11. Thunderstorms were most numerous in Colorado, California, and Louisiana. The dates of thunderstorm occurrence were most numerous in: Florida, eight days; Colorado and Texas, five days.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed

to be the four days preceding and following the date of full moon, viz, from the 5th to the 13th, inclusive. On the remaining nineteen days of this month 480 reports were received, or an average of about 25 per day. The dates on which the reported number especially exceeded this average were: 14th, 97; 15th, 139; 23d, 65.

Auroras were reported by a large percentage of observers in Minnesota, Maine, Michigan, Montana, New Hampshire, North Dakota, and Wisconsin.

The dates of auroras were most frequent in: New Hampshire, 13; Wisconsin, 12; Minnesota, Montana, and Ohio, 10; Massachusetts and North Dakota, 9; Iowa and South Dakota, 8.

The aurora observed on the evening of February 26 at Washington, D. C., was reported to have been accompanied by a severe disturbance of the telephone lines, but a special report from Mr. Samuel M. Bryan, President of the Chesapeake and Potomac Telephone Company, states that this disturbance was due to the telephone lines being rendered useless by the grounding of a heavy electric-light circuit, so as to seriously impair and in some cases totally destroy the efficiency of the underground system.

CANADIAN DATA—THUNDERSTORMS AND AURORAS.

No thunderstorms were reported.

Auroras were reported as follows: 1st, Minnedosa, Man., and Prince Albert, Sask. 2d, Quebec, Que., Minnedosa, Man., and Prince Albert, Sask. 3d, Minnedosa, Man. 7th, Prince Albert, Sask. 8th, Winnipeg, Man., and Prince Albert, Sask. 13th, Winnipeg and Minnedosa, Man., and Medicine Hat, Assin. 14th, Grand Manan and St. Andrews, N. B., Charlottetown, P. E. I., Father Point, Que., Toronto, White River,

Kingston, Saugeen, and Port Arthur, Ont., Winnipeg and Minnedosa, Man., Medicine Hat and Qu'Appelle, Assin., and Battleford, Sask. 15th, Halifax and Yarmouth, N. S., Grand Manan and St. Andrews, N. B., Charlottetown, P. E. I., Father Point, Que., Toronto, White River, Kingston, Port Stanley, Saugeen, Parry Sound, and Port Arthur, Ont., Winnipeg, Man., and Battleford, Sask. 16th, Halifax, N. S., Medicine Hat, Assin., and Battleford, Sask. 17th, Father Point, Que., and Kingston, Ont. 18th, Prince Albert, Sask. 20th, Father Point, Que., and Winnipeg, Man. 23d, Yarmouth, N. S., St. Andrews, N. B., Father Point and Quebec, Que., Toronto, White River, and Kingston, Ont., Winnipeg, Man., Medicine Hat, Assin., Banff, Alberta, and Prince Albert, Sask. 24th, Grand Manan, N. B., Medicine Hat and Swift Current, Assin., Banff, Alberta, Prince Albert and Battleford, Sask. 25th, Minnedosa, Man. 27th, Winnipeg, Man., and Esquimalt, B. C. 28th, Winnipeg, Man., and Medicine Hat and Swift Current, Assin.

METEOROLOGY AND MAGNETISM.

For general remarks relative to this subject see page 7 of the REVIEW for January, 1895.

The comparison of the air temperature with magnetic horizontal force is shown in detail on Chart V, and the special features of the February curves are as follows:

The temperatures of the Calgary, Williston, and Sioux City groups each need the correction—1 for slope. Washington is corrected for slope by +1; San Antonio is compensated for

amplitude by the factor $\frac{1}{4}$, and for slope by +2. The mean temperatures are reduced to a zero datum line by -8, and the mean magnetic force by +23. The new solar magnetic period begins February 13.12.

After about a full year has been exhibited in this comparison of temperature and magnetic force variations, it will be proper to make some comments on the relations of the two systems of forces.

INLAND NAVIGATION.

The extreme and average stages of water in the rivers during the current month are given in Table VII. The only river that approached the danger line was the Sacramento, which was rather high during the first part of the month.

The thickness of ice in rivers and harbors is given for each Monday of the winter months in the Weekly Bulletin of Depth of Snow on Ground. On Monday, February 25, the reports indicated the following conditions: In the Missouri River the thickness of ice varied from 33 inches at Williston to 16 inches at the mouth; in the Mississippi River, from 26 at St. Paul to 0 at Cairo; in the Ohio, from 6 at Pittsburg to 3 at

Louisville; in the Hudson, from 18 at Albany to 0 at New York. In the Lake region the reports were: Duluth, 26.5; Marquette, 17.5; Green Bay, 18; Grand Haven, 15; Detroit, 15; Toledo, 24; Sandusky, 12; Cleveland, 14; Erie, 18; Rochester, 22; Oswego, 17.5. On the afternoon of the 25th the ice was reported as breaking up and moving at Miles City, Mont., Hermann, Mo., and North Bend, Ind.; and in a few days after this much ice in the rivers had broken up.

On February 5, at Nyack, the Hudson River, which is three and a half miles wide at this place, was frozen entirely over for the first time this season.

STATE WEATHER SERVICES.

The following extracts relating to general weather conditions are taken from the reviews published by the respective State services:

Alabama.—The month was remarkable for the extreme cold periods, especially during the first week. The temperature at many stations was several degrees lower than ever recorded at that season. The average monthly temperature for the whole State was 12° below the normal. The snowfall was also heavier than ever known in this section during this month, the monthly fall averaging from a few inches in the southern portions to a foot deep in northern portions, where it was sufficient, on the 14th and 15th, to impede railroad traffic. The Weather Bureau's cold-wave warning of the 6th, which was very widely distributed, did much to avert damage to early trucking crops, but in southern portions of the State, where such crops were further advanced, a great deal of damage was done, and most of such in that section had to be replanted. Fortunately the cold has retarded development of sap in fruit trees, and the prospect for a bountiful fruit crop is now very favorable.

Arizona.—Temperature for the month nearly normal. Rainfall, for an average of 42 stations, about a quarter of the normal for February; 13 stations reported no precipitation.

Arkansas.—The monthly mean temperature for February was 13.2° below the normal, and was the lowest of which there is a record. From the 1st to the 17th the temperature was constantly 13° or more below the normal, the daily average deficiency for these days being 21.3°. The lowest temperature occurred on the 7th, which was the coldest day generally throughout the State. On this date the minimum temperature ranged from 4° above zero in the extreme southern part of the State to 17° below at Pocahontas. The average precipitation for the State was 0.73 inch, which is 3.61 inches less than the normal amount and the lowest average ever recorded for the State during February. A large part of it was in the form of snow, the total fall ranging from a trace in the extreme southern part to 7.00 inches at Hot Springs. The snow that fell on the morning of the 7th was accompanied by a fine black sand or drift soil, which must have been brought from some distance, as the ground was covered with snow when this fell. Reports of this snow dust were received from Silver Springs, Benton Co.; Keesees Ferry, Marion Co.; Ozark, Franklin Co., and Fayetteville, Washington Co. (See January Review, 1895, page 15).

California.—As compared with the normal temperature for this month, an excess of from 1° to 4° was reported from all portions of the State, while the precipitation was deficient. The excess of temperature and deficiency of rainfall have produced a wonderful effect

upon the growing crops, although in some portions of southern California and the San Joaquin Valley a few showers are desirable to break the crust formed by drying winds since the heavy downpours of January have ceased. One notable phenomenon for February is the blooming of almonds, peaches, plums, etc., for a distance of 500 miles north and south.

Florida.—The mean temperature for the current month is 12.6° below the normal for the State and 10.5° lower than the mean for February, 1894. At Jacksonville it was not only the coldest February since the station was established, but the coldest month in the history of the station, and, doubtless, this will apply as well to all stations in the State. The 8th was the coldest day experienced in Jacksonville since the Weather Bureau office was established in 1871, and on this same day the temperature fell below the freezing point at all stations in the State except Key West. More snow fell in this State during February than in any month since observations were begun by the Weather Bureau. At Moseley Hall the snow which fell on the 14th is said to have been the first in forty-three years; it also fell on the same day at Tampa; in Pensacola it was deep enough, according to newspaper reports, to permit the people to ride in sleighs.

Georgia.—This month has been noticeable for its low temperatures and heavy snowfalls. On the morning of the 8th the State was visited by an unusually severe cold wave, which brought the temperature down to zero, or below, in the northern districts and to 10° or 12° in the extreme southern counties and many other portions of the State. Several snowstorms occurred during the month when the amount of snowfall reported ranged from 2 to 8 inches. The average temperature of the month for the State as a whole was over 6° below the seasonal normal, while there was a deficiency of 1.28 inch of precipitation.

Illinois.—Seldom has Illinois experienced such severe and long-continued cold as during the first half of this month. From the morning of January 22 to the evening of February 16 the average temperature of the State was a fraction over 9° and the minimum temperature during the same period was very close to zero—a record which has probably been excelled but once in the past twenty-one years, i. e., in the winter of 1875. The average temperature of the month was 20.1° , or 9.3° below the normal. During the past twenty-one years but two Februaries have been colder than the one just passed, viz, 1875, 16.2° , and 1885, 18.6° , a fact which makes a marked 10-year period. The precipitation was by far the smallest ever recorded for the month of February. The snowfall gives an average of 4.1 inches. During the severe cold of January and February the ground was well protected by snow, and on the last of the month winter grain was in good condition. The melting snow was largely absorbed by the ground, and may, in a measure, remedy the great lack of precipitation.

Indiana.—Unusually cold and dry weather continued during this month, except on the last few days, when there occurred a slight, and on the 28th a great, excess of temperature. Precipitation occurred on only a very few days, nearly all in the form of snow, except on the last two days of the month, when occasional rains fell. The depth of snowfall ranged from 2.3 to 13 inches. Deep snow covered the ground on the 15th, but at the end of the month it had disappeared, except a few traces in the northern portion. On account of the protracted drought during the autumn and winter, wheat is only in fairly good condition and pasture poor; some wheat has been winter-killed; stock suffered much from the continual cold and scarcity of water. Peach and cherry germs are reported to be killed and farm work much retarded by the inclemency of the weather of the past two months.

Iowa.—The current month was unusually cold and dry. The mean temperature for the State was 16.4° , or 5.8° below the normal. The minimum temperature was below zero sixteen consecutive days, 1st to 16th, inclusive. The last week brought a marked change, with spring-like conditions, during which period considerable wheat was sown in the northern half of the State. The average precipitation was 0.93 below the normal. The snow disappeared before the end of the month, and nearly all of the moisture entered the soil. The number of storm days was somewhat below the average.

Kentucky.—The normal temperature for this State during the current month, as deduced from records of the Weather Bureau stations at Cairo, Cincinnati, Lexington, and Louisville, covering periods of from twelve to twenty-four years, is 40° , or 13° higher than the mean for the past February, compiled from the records of forty-three voluntary observers. The warmest period of the month was from the 24th to the 28th, and the coldest from the 5th to the 10th. On the 7th, 8th, and 9th occurred the severest cold wave since the commencement of systematic records in the State, and so far as known, the severest ever recorded for the season. As the ground was covered with from 4 to 6 inches of snow throughout the greater portion of the State, no damage to winter grain resulted from this intense cold. From many localities came reports of damage to peach trees, but it can not be estimated until later in the season. Other fruit trees escaped without injury. The mean precipitation, as determined from the same sources as the mean temperature, shows a large deficiency of 3.69 inches. The precipitation came mainly in the form of snow, which remained on the ground in most sections until the 20th.

Louisiana.—February, 1895, will go down in the history of Louisiana climatology as a record breaker for cold and snow. The mean tempera-

ture averaged 12° below the normal for the month, and 8° colder than the coldest February heretofore (1889). The cold may be said to have been continuous throughout the entire month, there being only five days when the temperature averaged normal, or slightly in excess thereof, for the day. The coldest weather occurred on the morning of the 7th and 8th; more particularly on the latter date in the southern half of the State, and no such cold was ever known before in February in Louisiana, and but once in any other winter month, i. e., January, 1896. Within a week after this extreme cold the ground was covered with a mantle of snow to a depth of from a few inches at the Mississippi jetties to as much as two feet in southwest Louisiana. The precipitation for the month averaged about a third of an inch less than usual in February for the State, the deficiency being due to the small amount received in the northern half of the State, where it averaged less than 40 per cent of the usual quantity.

Maryland.—This month surpassed in cold weather all previous Februaries, at least since the establishment of the Weather Bureau in 1870, besides making a record for dryness seldom equaled. The severest storm was the cyclone which passed northward along the middle Atlantic coast on the 7th; and it is safe to say that, with the exception of the "blizzard" of March 11, 1888, no storm that has occurred within recent years will be longer remembered for its severity. This storm differed from the said "blizzard" in that it prevailed at a much lower temperature, and being much colder it was accompanied by a heavy fall of dry snow, and the telegraph service apparently suffered no impairment.

Michigan.—The mean temperature of the State for the current month was 8.5° below the normal, being one of the coldest Februaries on record, especially in the upper peninsula, where the departures from the normal have been very marked, and the lowest mean monthly temperatures for ten years past have been recorded. Both 1875 and 1885 had cold Februaries, and the February of 1895 was about as cold. Average precipitation over the State was 1.77 inch below the normal.

Mississippi.—The records for the month show this to have been the coldest February ever known in this State since records have been kept. The mean temperature for the month was 11.6° below the normal. The total precipitation averaged 3.08 below the normal. Snowfall averaging about 5 inches in depth occurred over the entire State on the 12th, 13th, 15th, and 16th; it was, however, very unevenly distributed, many stations reporting the heaviest fall that had been known for a long number of years, while others report the fall very light.

Missouri.—This month goes on record as the coldest February that has been experienced in Missouri since 1885, and in the southeastern portion of the State for a much longer period; at St. Louis the month was the coldest since February, 1856. The month was unusually dry in all sections. Over the greater part of the State wheat was well protected by snow during the severe cold weather of the first decade, but peaches have been seriously injured, and in some localities they are reported to be entirely killed. The melting of the heavy snows, together with the light rains during the latter part of the month, increased the supply of stock water, but it is still scarce in some localities.

During the prevalence of the high northwesterly winds on the 6th and 7th, a considerable quantity of dust or fine black sand was deposited over the southwestern portion of the State, and as the ground for many miles to the westward was covered with sleet and snow to a considerable depth, it is believed that this dust was brought by the wind from the prairies of Kansas and Nebraska. The deposit of dust was reported from stations as far southeast as Taney County, and Mr. S. C. Turnbo, observer at Keesees Ferry, Ark. (near Protom, Taney County), in describing the phenomenon says: "I have been reared in this county and am nearly 51 years old, and never knew such an occurrence before." [See January Review, page 15.]

Montana.—The temperature for the current month was about 4° above the normal. Precipitation about 0.17 of an inch above the normal.

Nebraska.—This was a cold month, with rather more than the average precipitation.

Nevada.—The temperature and precipitation for this month were both slightly below the normal. The snowfall was in excess of the amount which usually falls in this month, the mean fall being 11.1 inches.

New England.—The average temperature of the month was 4.5° below the normal. The precipitation was all in the form of snow at most stations, and the greater part of it came in the storm of the 7-8th. Although the snowfall was less than usual, the ground has been well covered throughout the month, and lumbermen have generally had a splendid winter for work. Winter grains and grass roots are pronounced in good condition.

New Jersey.—The mean of the current month was 7.9° below the normal; the average precipitation 2.18 below the normal. Snow was quite general throughout the State, the heaviest occurring during the "blizzard" of the 7th and 8th, when travel was almost entirely suspended by the great drifts. About the only rainfall during the month was on the 28th and was very light. The record for Newark, N. J., shows that only four Februaries during the last fifty-one years have given us a lower mean temperature than that of the one just closed. The coldest

February of which we have any record was that of 1868, with its mean temperature of 21.8°; that of 1855 gave us a minimum of 8° below zero, while the month just closed gave us a minimum of 4° below on the 6th.

New Mexico.—The past month was a record breaker for low temperatures, and will long be remembered as the coldest February in many years. The precipitation was above the normal and rather unevenly distributed.

North Carolina.—The current month was the coldest on record during the past quarter of a century; the mean for the whole State is the lowest for any month during that period, excepting January, 1893, which is 1.9° colder. The precipitation was 1.83 inch below the normal, but occurred mostly as snow and sleet, much of which remained unmelted on the frozen ground for nearly three weeks. The last five or six days of the month were pleasant and warm. The covering of snow is thought to have protected the wheat crops, and unless March is unreasonably warm there will be a fine fruit crop in North Carolina this year. The observer at Linville writes: "Temperature 16° below zero on the morning of the 8th, and the coldest known here; houses not calculated for such extraordinarily cold weather, which, however, was not felt as severely as it would have been at low altitudes on account of the dry air."

North Dakota.—The month has been nearly an average one as far as temperature is concerned, the departure from normal being only three-tenths of a degree below the usual temperature. The first ten days of the month were very severe, but after that time it was, as a general thing, mild and pleasant.

Ohio.—The month averaged 10.6° below the normal, and, with the exception of February, 1885, was the coldest February on record. Cold waves culminated on the 1st, 4th, and 8th, the latter producing the lowest temperatures of the month. The precipitation for the month was 3.01 inches below the average, and was the least monthly precipitation for February on record since the opening of the service. The percentage of verification of weather forecasts received from Washington and distributed to 120 points by telegraph and 800 by postal card was 90 for temperature and 93 for weather. All cold warnings were fully justified, and were of great benefit to the people of the State.

Oklahoma.—During the past month the average temperature was but 29.5°, or 9° below normal. On the 7th the average for the day was zero, which was the coldest weather ever recorded in February, and the coldest single day ever recorded in any month. Less precipitation fell in February than in any other month.

Pennsylvania.—With the exception of 1885, this was the coldest February in the past twenty years. Not only were unusually low temperatures recorded on the 6th, but the month was uniformly cold. The navigation of the Delaware River was practically closed for days to shipping. Many persons crossed the river on the ice between Philadelphia and Camden.

South Carolina.—The current month was an unusually cold one; in many instances it was reported as the coldest on record and as having the longest continuous freezing weather of which record has ever been made in this State. In the central portion of the State ice formed to a thickness of 0.5 inch, and in the southern portions ice formed on rivers that were never before known to freeze. The precipitation averaged 84 per cent of the usual amount. Farm work was greatly delayed. But little plowing could be done until near the end of the month, and then only on hilly and well-drained lands. The heavy snowfall of the 11-12th nearly all remained on the ground for about a week in the central portion of the State and protected grain crops, except that oats were badly damaged by the previous severe freezes.

South Dakota.—The mean temperature of the month was about 4.0° below the normal. The first decade of the month was very cold, with

the daily mean temperature below zero over most of the State. After the 15th it was comparatively mild. The 7th was the coldest of the winter, the average mean temperature of the four regular Weather Bureau stations for that day being 18° below zero. The greater part of the month cattle fed on the ranges over most of the State.

Tennessee.—The month of February, 1895, was phenomenally cold and dry. Snow covered the ground during the greater part of the month, affording valuable protection for wheat, which is now reported in excellent condition and growing well. The severe weather has doubtless caused much suffering to man and beast, but aside from this it has been beneficial to agricultural interests, in that it has killed off many insects and germs injurious both to vegetation and health. It has mellowed up the soil by prolonged freezing, so that it now responds readily to the plow; it has kept back the sap in fruit trees, so that our prospects for a good crop are brighter than for years. The precipitation, which has been unusually light, was almost entirely in the form of snow, which was well and evenly distributed throughout the State.

Texas.—The principal event of the month was the blizzard and weather of February 6-9th. An article by Dr. Cline states that notice of the approach of the norther was telegraphed or mailed to about 600 towns in Texas early enough to enable the citizens to protect their property. The prediction of high northerly wind for Galveston was utilized by the small vessels, and no damage of consequence was noted.

Utah.—This was an uneventful month. The weather throughout the Territory was generally clear and moderately warm, with light wind and about the average amount of precipitation. The average precipitation was slightly below the February normal.

Virginia.—Comparing records of Norfolk, Lynchburg, and Washington, D. C., we find this to have been the coldest February since the commencement of Weather Bureau records in 1871, and that the deficit was greatest in the southern sections of the State. Rains occurred on and near the coast on the 2d, 16th, and 19th; otherwise the total amounts of precipitation recorded for the State are about 40 to 65 per cent below the normal. The snow on the ground proved a great protection generally to winter crops until about the 25th, and then rapidly disappeared with warm weather. Preparation and burning of tobacco beds were being carried on in many sections the last days of February, and some plowing in progress.

Washington.—This has been a month of remarkably fine winter weather in this State. It was, on the whole, very much like February of 1893, although not quite so free from rain and slightly warmer. The amount of precipitation was 1 inch less than the average of six years, and the mean monthly temperature was 4.5° above the average. In western Washington some plowing and seeding was done in the warmer sections; flowers bloomed in the gardens and willow catkins opened in the forests; grasses and ferns remained green throughout the month. On the eastern side of the Cascade range spring-like conditions also prevailed. Some seeding was done; there was plenty of sunshine and flowers; larks and robins were reported. There were no storms during the month severe enough to do any damage.

West Virginia.—This has been an abnormally cold month, the coldest portion being from the 6th to the 11th, inclusive, temperatures below zero being recorded at nearly all stations on most of those dates. Precipitation, while deficient, fell in the form of snow and was unusually heavy in some localities.

Wisconsin.—This has been the coldest February since the establishment of the State Weather Service, and the Weather Bureau records at the Milwaukee station show but two instances where the monthly mean temperature for February was as low as during the past month. It is a fact worthy of note that the three coldest Februaries since 1871 occurred in regular order by decades, as follows: 1875, 1885, 1895. The average precipitation was 0.98 below the normal for February.

STUDIES BY FORECAST OFFICIALS.

As a preliminary to active duty, the forecast officials are given subjects for investigation from time to time. The following paper will be found of interest to all students of the problem of making weather forecasts:

A STUDY OF STORMS IN TEXAS.

By Prof. H. A. Hazen (dated January 29, 1894).

The following is "An examination of the low areas which formed over Texas, or on the Texas coast, during October, November, and December, with a view of determining the conditions which preceded their development, their probable movement, and the time required for the weather conditions attending them to extend to the Atlantic coast."

At the very first of this study it was found that the low areas which formed in Texas, or on the coast, were very few,

and it was decided to add a study of all cases of rainfall which began in Texas. It is easy to see that, after all, what is most needed is a study of the occurrence of rain, and it was found that nearly half the cases in October, and almost as many in November, were with an advancing high area. The maps studied were those prepared in the Forecast Division for the years 1880-'88, inclusive, making nearly 2,400 maps. Some puzzling cases of rainfall were found at Brownsville, and, to elucidate these, all the observations made at Tlacotalpan, in Mexico, on the Gulf of Mexico, were studied in connection with the United States maps. The motions of lower and upper clouds were also studied to determine their influence, if any.

In going through the maps copious notes were made of each map under study, and while these have been freely used in

making up this report, it was not deemed advisable to transcribe them fully. The number of cases of rainfall and the number of maps from which notes were taken are given in the following table:

Number of cases of rainfall and number of maps studied.

Year.	October.		November.		December.	
	Cases.	Maps.	Cases.	Maps.	Cases.	Maps.
1880.....	2	21	7	30	8	22
1881.....	5	16	5	21	5	37
1882.....	4	26	4	33	9	47
1883.....	1	8	4	18	6	32
1884.....	0	0	3	12	6	30
1885.....	2	7	2	16	3	30
1886.....	2	10	5	20	4	24
1887.....	5	31	2	20	8	52
1888.....	4	10	4	24	6	35
Total.....	25	129	36	194	55	299
Average.....	2.8	14.3	4.0	21.6	6.1	33.2

This table shows at once the gradual progression of the phenomena under study as the winter draws on. In fact, the driest month of the year at New Orleans is October (rainfall, 3.49, November giving 4.81, and December, 4.95). At Palestine, also, October is the driest of the three months. This is not the case, however, at Galveston, Brownsville, and San Antonio, but these studies included the Gulf and south Atlantic States. The rain at Galveston per storm was less in the later months, and this gave a slightly less rainfall, although the number of storms actually increased.

It is a little difficult to give a satisfactory summary of all these cases, and it should be remembered that what are given are the salient features of the precipitation as a whole.

OCTOBER.

In this month, more than in the others, there is a tendency to a diminished rainfall, with a *southerly wind*. A well-defined storm may originate in Texas, or traverse that State, and yet it is a curious fact that the south wind blowing off the great body of water in the Gulf does not give an abundance of rain. It is probable that nearly two-thirds of the cases of rain on the Texas Gulf in this month come with the north winds in the front of a high area or in the rear of the storm. This may be due in part to the fact that the rather cool gulf wind has its moisture or relative humidity diminished by the heated land. This rule is gradually overcome as the winter comes on, and in December most of the rain comes in front of the storm, while in the rear the north wind is rather drying. There are some difficulties in this explanation, and I merely present it as a working hypothesis.

RAIN FROM HIGH AREAS.

One of the peculiarities of the weather in October is the occurrence of rain, more or less severe, in the rear of a storm, or at other times in the front of a high area. Under these conditions, usually we have clear weather and the absence of rain. This phenomenon seems analogous to the occurrence of rain in the rear of storms in the Missouri Valley, which has been noted and commented on before. I could not find that the varying motion of clouds brought about the result. The rain is usually far more abundant at the shift of the wind or just at the beginning of the north wind, and the effect disappears when the high area wind has full sweep or is well established. It is probable that the upper current shifts a little before the lower, also the conditions left by the south wind may have brought about the rain with the oncoming colder north wind. I still regard this rainfall as difficult to explain.

The largest number of lows in October seem to come to

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Texas from the west or south, though a very few recur from the Gulf. As a general thing, they are not marked by a great depression of air pressure, and, in fact, this may be said of nearly all the lows in this region during the three months. The most difficult conditions to forecast are those accompanying troughs of low pressure extending from Texas to Minnesota or the Lakes. Usually the northern part of this trough separates from the southern and goes on as an independent storm, leaving a disturbed condition in the Gulf. The motion of this disturbance is exceedingly irregular, but, in general, it moves very slowly along the Gulf coast to the south Atlantic and then up the coast. One peculiarity is that with this low there is not the usual clearing up in the rear, but rain may continue for thirty-six or even forty-eight hours.

Perhaps the most important condition to be watched under any circumstances is the behavior of the high area on the Atlantic coast. This high area is almost invariably found and often remains stationary on the middle Atlantic coast for thirty-six hours. If this moves off to sea the tendency is for the storm to develop and move after it. If the high area moves to the Nova Scotia coast, the storm will then begin to develop and will move rather slowly either along the Atlantic coast or from the middle Gulf to the upper Ohio Valley. If the high area gradually moves to the south Atlantic coast, the storm will move up the Mississippi Valley and the Atlantic coast will not get rain, except sometimes New England. I have devoted special attention to the movement of this high area, but can not lay down any rule as to when or under what circumstances it will settle over the south Atlantic coast or move to the northeast over Nova Scotia. It is possible that the observation at Bermuda might help out the study of this problem. At all events it would be a great advantage if a twice-daily observation were sent by mail from Bermuda and the record entered on the map.

NOVEMBER AND DECEMBER.

The storms in these months have about the same rate of motion as in October, but they develop into much more extensive storms and at times cover enormous regions. The trough conditions are especially marked in these months and are very difficult to positively forecast until they reach the Alleghanies. The prediction of rain with a north wind in Texas can not be ventured upon in these months, as there is a greater tendency for rain with south than with north winds.

I should say that rain is very difficult to forecast in Texas in the three months under study. The danger is of giving too much weight to threatening conditions. There is a certain condition of pressure which is invariably followed by clearing weather, i. e., a rise in pressure to the south of Texas, or sometimes over the State. This is almost an infallible sign and should be looked for with great care.

It is probable that the weather over the Gulf remains rather unsettled during these three months, though this occurs oftener in November and December than in October. The wind arrows frequently show such disturbance long before the pressure has been markedly affected.

In the course of my studies I have had occasion to examine critically all the storms of the Gulf that have approached the coast of Texas and the Southern States, and the list then prepared was published in the WEATHER REVIEW (see the REVIEW for November, 1893). The total number of these storms that reach the west Gulf is exceedingly small. I have found that in these months the Gulf storm frequently loses its intensity very rapidly. This was especially so in the case of the storm of October 12 and 13, 1886. The pressure at Galveston at 11 p. m. of the 12th was 29.35, but this was quickly diminished on the land, though giving a wind of 55 miles per hour from the southwest.

NOTES BY THE EDITOR.

OBSERVATIONS AT HONOLULU, HAWAIIAN ISLANDS.

As the weather on our Pacific coast depends largely upon the condition of the atmosphere to the westward, it is considered important to publish in full, and as soon as practicable, the data furnished by observers in Alaska, the Hawaiian Islands, and intermediate regions.

Meteorological observations at Honolulu, Republic of Hawaii, by Curtis J. Lyons, Meteorologist to the Government Survey.

Pressure is corrected for temperature and reduced to sea level, but the gravity correction, -0.06 , is still to be applied.

The absolute humidity is expressed in grains of water, per cubic foot, and is the average of four observations daily.

The average direction and force of the wind and the average cloudiness for the whole day are given unless they have varied more than usual, in which case the extremes are given. The scale of wind force is 0 to 10.

The rainfall for twenty-four hours is given as measured at 6 a. m. on the respective dates.

February, 1895.	Pressure at sea level.			Temperature.						Humidity.			Wind.		Cloudiness.	Rain measured at a. m.
	9 a. m.	3 p. m.	9 p. m.	6 a. m.	2 p. m.	9 p. m.	Maximum.	Minimum.	Relative.		Absolute.	Direction.	Force.			
									9 a. m.	9 p. m.						
1..	Ins.	Ins.	Ins.	66	75	72	77	65	90	75	6.8	sw.	4	7	Ins.	
2..	29.82	29.74	29.78	71	76	71	77	70	73	90	6.9	ssw.	5	7	0.29	
3..	29.83	29.80	29.87	71	72	71	76	64	84	77	6.9	sw-w.	3-5	10	0.04	
4..	29.96	29.91	30.02	68	76	69	77	68	77	79	6.4	sw.	2	5-2	0.35	
5..	30.08	29.96	30.05	61	75	68	77	61	84	90	6.3	s.	0-2	3-6	0.06	
6..	30.07	29.96	30.08	63	76	68	78	63	77	90	6.6	s.	1	3	0.09	
7..	30.06	29.96	30.04	64	75	68	78	64	74	84	6.6	s.	1	3	0.09	
8..	30.04	29.98	30.06	63	77	68	79	63	77	87	6.8	n-s.	1-6	3-6	0.09	
9..	30.07	29.97	.....	63	78	.....	80	63	75	.....	.....	n-s.	1	2-4	0.09
10..	30.05	29.99	30.04	67	78	72	79	67	77	86	7.1	s.	2	3	0.09	
11..	30.06	30.01	30.06	70	77	72	79	70	85	85	7.5	s.	1	5	0.09	
12..	30.02	29.94	30.00	71	77	74	79	68	77	77	7.3	s-sw.	3	2-7	0.08	
13..	30.11	30.08	30.13	64	70	68	74	63	69	54	4.8	n.	2-5	8-1	0.09	
14..	30.19	30.12	30.19	67	73	69	74	61	45	35	4.2	nne.	5	1	0.09	
15..	30.21	30.14	30.22	69	74	70	75	68	54	42	5.1	ne.	4	5	0.09	
16..	30.20	30.12	30.15	69	74	70	76	68	65	70	5.5	e.	3	5	0.09	
17..	30.18	30.07	30.14	67	74	70	76	66	70	72	5.7	e.	1	7	0.09	
18..	30.16	30.08	30.14	65	74	71	77	64	62	62	5.5	ne.	3	5	0.60	
19..	30.13	30.04	30.10	66	75	71	77	65	62	65	5.6	ne.	3	3	0.60	
20..	30.12	30.08	30.12	68	69	68	73	66	70	80	6.3	n.	3	10	0.08	
21..	30.15	30.06	30.10	68	71	68	72	67	66	76	5.5	nne.	4	10	0.59	
22..	30.12	30.06	30.12	68	73	70	74	67	74	68	5.8	ne.	4	4	0.02	
23..	30.10	30.02	30.07	68	74	64	77	68	61	79	5.5	ne.	3	2	0.00	
24..	30.10	30.02	30.07	61	75	67	78	59	62	79	6.0	ne-s.	0-1	1	0.09	
25..	30.07	30.08	30.14	71	71	65	76	67	80	63	5.5	w-n.	3-1	10-0	0.60	
26..	30.21	30.13	30.21	65	71	66	72	62	49	52	3.9	n.	6-7	2	0.21	
27..	30.22	30.16	30.22	65	72	74	74	62	59	55	4.3	nne.	3	3	0.00	
28..	30.26	30.18	30.24	66	72	68	74	64	65	65	5.0	ne.	4-5	8	0.00	
30.087	30.013	30.060	66.674	1.09.1	76.3	85.2	70.2	73.6	5.9	.....	.....	.....	.....	.....	2.63

Mean temperature: $6 + 9 + 2 + 3$ is 69.9; the normal is 70.4; extreme temperatures, 80° and 59°.

Thunderstorms: 2d. in the evening from SW.

High winds: 14th and 16th, N.

Last half of month, atmosphere was unusually dry.

CORRESPONDENCES IN EUROPEAN AND AMERICAN WEATHER.

Mr. Joseph Brucker writes in the *Staats-Zeitung*, Chicago, February 8, as follows:

The late Professor Dove, of Berlin, one of the founders of meteorology, has propounded the law that the weather in Europe offsets that in America; that is to say, it is warm there when it is cold here; that the winter is severe there when it is very mild here; and, finally, that a cold, wet summer in Germany is accompanied by a hot, dry summer in the United States. This law of Dove's does not, however, always prevail.

Last year when America, simultaneously with Europe, suffered from the oppressive heat we expressed, in an article in the *Staats-Zeitung*, our doubts as to the correctness of Dove's rule and sought, by a hypothesis advanced by us several years ago, to explain the conditions of the weather. We recapitulate this theory briefly as follows:

Our country east of the Rocky Mountains belongs to the great North Atlantic atmospheric whirl which receives its impetus, its warmth, and moisture from the tropics. The Gulf Stream is the maritime continuation, the oceanic twin brother of this atmospheric whirl, and both have the closest connection with each other. While, however, a definite boundary for the Gulf Stream is established by the coasts of the continents, i. e., our Atlantic shore, the west coasts of Europe, north Africa, and the north coast of South America, on the other hand, the atmospheric current which is continually flowing over the West Indian Islands toward the high plateaus of Mexico and Texas and the Rocky Mountains then turns and moves northeast toward Europe, then turns

south, becoming again the trade wind, and thus completes its course; it resembles an elastic band that, although in the main it remains in the same position, yet in detail takes upon itself various forms and positions. As the energy of this current originates in the tropics, the weather conditions of Europe depend upon the energy, moisture, and temperature which the currents of air bring with them from the American and North Atlantic latitudes. If a part of this energy is given away as heavy rains in America, or is weakened by severe cold on this side, then the atmospheric whirl will not penetrate so far into the European region, but will sooner turn southward and make room for the compensating east wind, which will bring severe cold to Europe in the same way that the northwest wind does in America.

Thus it can well happen that continuous severe rainfall on this side of the Atlantic Ocean will occasion a dry summer in Europe and seem to confirm Dove's rule, whereas our hypothesis covers all cases and agrees with Dove's only in certain cases, and therefore we are justified in claiming the greater probability in favor of our own.

Although the general circulation of the atmosphere is by no means so systematic as above described, yet the conclusion given in the last sentence will sometimes hold true, namely, that an excess of rain on one side accompanies a drought on the other side of the ocean, but it would not do to expect that these contrasted climates will necessarily occur over Europe and the United States respectively. The balance may occur over other countries to the north or south, or it may occur far in the interior of the two continents as well as on the coast. The motions of the atmosphere above the 3,000-foot level are but slightly affected by the presence of continents and oceans, but only by high plateaus and mountain ranges. The droughts and rains that we experience are due far more to the changes going on in the general upper circulation than to the local conditions of the lowest strata. It is only in very special localities that the latter are more important. Neither our knowledge of the laws governing the motions of the atmosphere, nor our knowledge of the climatic statistics of the last century, justifies the expectation that there can be any simple relation between the rainfalls or the temperatures of definite regions in Europe and America. Nevertheless, there are, and ought to be, complex relations still to be discovered, by means of which long-range forecasts may become possible.

OPTICAL PHENOMENON AT WASHINGTON, D. C.

On Wednesday, February 13, 1895, there prevailed clear sky, slight haze, westerly winds, much light snow driven in the air, and whitish haze spots in the sky; a horizontal circle of about 15° radius, concentric with the zenith, extended about 45° in azimuth either side of the sun's azimuth; it showed a brilliant spectrum, whose red side was below, or nearest, the sun. At about 9.15 it began fading away. At this time the angle between the center of the arc and the center of the sun was about 55° and the altitude of the sun was about 20°.

Snow is composed of ice crystals, of which the simplest forms are regular hexagonal plates and hexagonal prisms made up of such plates, which prisms may have either broad, flat, or smaller truncated ends. These regular hexagons are considered to be made up of primitive rhombohedrons, viz, parallelopipedons, whose faces are regular lozenges. The six faces are all inclined to the axis at the same angle, viz, 54° 44', as measured by Clarke and adopted by Bravais. Snow crystals are sometimes 6-rayed stars where angles of 30° can occur. In general, the rays of light passing through prisms of ice encounter the faces of the prism at angles of 120° or 119° 28', or 60° or 59° 44', or 30°. Air that is apparently very clear may contain many ice crystals slowly descending, and therefore in every imaginable position with reference to the observer and the sun, and enough will at any moment be in any given position to produce decided optical effects. If the air is still and the prisms are descending quietly many will have their axes vertical and the plane plates at their ends

horizontal, while others will be rapidly rotating round their longer axes and will have the end plates vertical. The reflections from these plates will produce horizontal and vertical bands of bright light intersecting at the sun and at a point opposite to the sun in azimuth. The arcs of colored light, or rainbows, such as above described at Washington, are produced by rays that enter and leave the prisms through faces or facets that are inclined to each other by an angle of $54^{\circ} 44'$ or $109^{\circ} 28'$, or some other multiple of the angles above enumerated. The exact measurement of the location and dimensions of all the phenomena attending a solar halo would enable one to determine the shapes and positions of the descending prisms of ice.

DUSTSTORM.

Mr. I. M. Stackhouse, Statler, Crawford Co., Ark., forwarded a sample of dust that fell in that place on the night of February 7, 1895. A north wind, which began about 3 p. m. of the 7th, had by midnight reached 60 miles per hour. The next morning this dust was found, discoloring the snow that had fallen two weeks before. The amount sent was obtained from about one quart of snow. This dust is similar to that of the duststorm reported in the REVIEW for January. (See also the paragraph *Missouri* in the chapter on State Weather Services in this number of the REVIEW.)

DESCENDING WARM WINDS.

Attention has frequently been called in previous REVIEWS to the fact that whenever a low area is central on the eastern slope of the Rocky Mountains the inflowing westerly winds show the warming due to their rapid descent from the higher land to the west. An excellent illustration of this is shown on the maps of the 19th and 20th. On the morning of the latter date low No. XVI was central in Manitoba and an area of 20° or 30° rise in 24 hours covered the region between Colorado, Minnesota, and Assiniboia, the temperatures having risen from 10° or 20° F. to 30° or even 50° , with strong northwesterly winds. At this time a ridge of high pressure extended from Texas to Oregon, and so long as light winds prevailed on the eastern slope low temperatures continued, but when, on the 20th, high winds sprung up, owing to the presence of the low, the temperature at once rose, without any material change in the direction of the wind. There can be no reason to doubt but what this is a case of dynamic warming due to compression.

THE NOISE MADE BY A METEOR.

The attention of the Editor having been specially called by a correspondent to certain mysterious noises heard at stations in Florida on February 7 or 8, at the time of the remarkable cold weather, it seemed best to investigate this subject, at least far enough to justify one in deciding for or against the various suggestions as to its being an earthquake, or an electrical phenomenon, or a discharge of artillery, or the noise of distant blasting. In reply to circulars sent out by Mr. E. R. Demain, Director of the State Weather Service, about twenty-five reports were received. Most of the observers state that no noises were heard, but eleven stations sent in reports sufficiently definite to suggest the correct explanation of the explosions heard between 11 a. m. and noon of the 7th. These reports are given in abstract, as follows:

Kissimmee.—About 5 a. m. of February 8 very loud sounds, resembling reports of artillery, were heard in the air. The sound is said to have been heard at a distance of 8 miles. The cause is not known. It is supposed to have originated in the northern part of this town, about 15 feet north of the Florida Midland Railroad, where the ground was slightly torn up.

Orlando.—The detonations were heard in Orlando on the 7th (Thursday), not on the 8th. On Thursday, just before noon, many residents living east and southeast of Orlando saw a bright meteor pass over to-

ward the north, and its disappearance was followed by a noise as of a loud explosion. Later reports state that a double explosion occurred about 11 a. m., and several report that it shook their houses as would an earthquake; one, who was in bed at the time, felt the house shake and heard the loud report. These persons state that the noise appeared to come from some point southeast of them.

Winter Park.—Some one at the college states that a meteor passed over the college about 11 a. m. on the 7th, and is said to have fallen at Forest City, and that the noise was heard in Orlando.

Oviedo.—"12 miles southeast of Orlando." (So stated by letter, but the chart locates it 12 miles northeast of Orlando.) The double detonation, or twin reports, were heard at 11 a. m. of the 7th, following one another in quick succession and still southeast of them.

Tarpon Springs.—Several families noted detonations, strong enough to jar houses, between 6 and 10 p. m. of the 8th, supposed to be thunder, although the sky was clear and there was no lightning. The first noises came from the east, later ones from the zenith, and finally from the west.

Orange City.—No noises were heard, but at Kissimmee a meteor burst and fell. No pieces were obtained.

Green Cove Springs.—Heard some peculiar sounds during the storm (7th or 8th?); the first were the louder and like thunder and from the southwest; the last reminded one of the booming of distant sunset guns at sea, and apparently came from the northeast.

Plant City.—No noises on the 8th, but on the 7th, about noon, heard what I supposed was distant, heavy thunder in the southeast, that reminded me of heavy siege guns a long way off. I did not note it as thunder, as I supposed that it was a blasting at the phosphate mines, as it was in that direction and I was told so by a citizen.

Amelia.—Some persons remarked heavy sounds, like distant guns or cannon, at the time of the cold wave, but they do not remember the date. Some thought it was like thunder, only shorter, and there were no clouds. I remember hearing a good many reports one day, something like shot guns, and yet different from that—rather sharper and heavier. I could not tell where they came from or whether far or near.

Clermont.—About twelve different persons heard such a noise on the 7th (but not on the 8th), between 11 a. m. and noon, standard time. Some thought the noise came from the east, others from the northeast, and yet others from the west; none seemed to think that it came from overhead; they all thought of the shooting of a cannon when they heard it.

In explanation of these reports it may be stated that those from Kissimmee relate to a sound heard at 5 a. m. of the 8th, whose origin is unknown.

The reports from Orlando, Winter Park, Oviedo, and Forest City, and those from Clermont and Orange City almost certainly relate to a meteor that passed northward over Winter Park between 11 a. m. and noon of the 7th. The observations at Plant City in all probability refer to the same meteor, and if the report from Tarpon Springs has been ascribed to the wrong hours and date, then it is quite possible that the sound of the same meteor was heard at that place. If the report from Kissimmee were not so definite as to hour and day and locality it would be plausible that this referred also to the same meteor.

It is perfectly possible that three meteors occurred: (1) at 11.30 a. m. of the 7th, (2) at 5.30 a. m. of the 8th; and (3) between 6 and 10 p. m. of the 8th.

The noises that are sometimes heard in connection with meteors, and which are generally spoken of as explosions, may properly be classed as meteorological phenomena, and if we had more accurate observations of the path of the meteor, the character of the noises, and the intensity of the light and heat, we could undoubtedly deduce therefrom some results of interest to meteorology, just as the astronomer deduces from the direction and velocity of the motions of meteors results of great interest to his science.

Meteors shoot into the earth's atmosphere with an immense relative velocity, sometimes as great as 40 miles per second, and in their onward rush strike the thin upper air with very much the same effect as when one brings his hand down with great force upon a surface of water. The air is compressed and carried along with the meteor and also driven outward with great force; a great heat is evolved and the surface of the meteor is rapidly burned away. The compression and burning take place so quickly that the heat does not pene-

trate deeply into the body of the meteor, and when one is picked up, after falling to the ground, it is often found to have a very cold interior.

On account of its irregular shape and the consequent irregularities of the pressure in front the meteor usually acquires a rotation about its center. This rotation introduces many irregularities in its strokes against the atmosphere. The spitting, snapping blows due to the cracking off and gradual breaking up of the meteor combine with the general noise of the irregular strokes against the air, but the latter are the principal sources of sound. After the meteor has disappeared, which usually happens in a few seconds, there is left, as it were, a long hole or track in the air, into which the atmosphere is rushing back to fill it up. From this track and around it as an axis there spreads a rapidly widening wave of compression or noise. The phenomenon of the inward rush of the air and the filling up of the trail of the meteor is precisely similar to that which follows the snapping of a whip, the flash of lightning, or the passage of a rifle ball, but the principal wave of compression is due to the strokes of the meteor on the atmosphere and is only feebly imitated by the air wave in front of a cannon ball, since the meteor moves from twenty to a hundred times faster than the latter.

We must liken the wave of impact, or compression, to the little wave that starts at the prow of a steamboat and spreads to the right or left, forming what Scott Russell calls the great primary wave of propulsion on the water. The angle at which this wave spreads out depends upon the speed of the boat and the speed at which gravitation waves advance at the surface of the water, and it is therefore smaller in proportion as the boat goes faster. In the case of a meteor the angle depends on the ratio between the velocity of sound in the air and the velocity of the meteor, which ratio may be about as 1 to 100. Therefore, at the moment when the meteor disappears (either by burning up or by breaking to pieces, or by striking and stopping at the earth's surface, or by passing entirely through the upper atmosphere and out again into the free space in a nearly horizontal path) the wave of sound, which is a wave of violent compression of the air with numerous irregularities superposed upon it at every point along its extent, has the form of a slender cone whose apex is at the head of the meteor, and whose base is far behind where the meteor first struck the atmosphere. The angle subtended by the sides of the cone may be about one-half of a degree of arc. An observer at the earth's surface will not hear any noise from the meteor until the surface of this cone reaches

his ear by enlarging, as it does, at the rate of about 1,100 feet per second, and the first sound that reaches him comes from the nearest point of the path. The sound is so intense that it may be heard as distant thunder 100 miles away, but of course this depends upon the condition of the atmosphere and the quiet surroundings of the observer. If, as is usual in the daytime, the lower atmosphere is a mixture of rising and falling currents of warm and cold air, then the sound wave is broken up and rapidly enfeebled. A similar enfeebling happens to a beam of light when it passes through great distances of mixed warm and cold air.

In the present case, on February 7, it is within bounds to assume that a meteor entered the atmosphere 20 or 30 miles south or southeast of Orlando, and at a height of 100 miles; it pursued its rapid flight, inclining downward toward the earth's surface at an angle of 20° to 40° , passed over Orlando and Oviedo northward, and burned up and disappeared by the time that it got within 5 miles of the earth's surface, some distance to the north of Winter Park or Forest City. The nearest approach to the observers at these places would then be from 5 to 15 miles; the wave of sound would require from twenty-five to seventy-five seconds to reach their ears, and if the observer at Clermont or at Plant City, 50 miles southwestward, heard the same sounds, as is perfectly possible, he would have done so a minute or two later. When such sounds traverse the air nearly horizontally they are liable to be refracted and reflected just like beams of light; they may pass over one group of stations and descend upon a distant group. If such a case is well observed, it gives us the means of ascertaining the relative density, or the temperature, pressure, and moisture at different heights in the atmosphere, and the same may be said of the noise attending a flash of lightning. A wind that is stronger in the upper layers than near the ground, and this is the normal condition, will deflect the sound wave downward and thus diminish the distance to which the noise can be heard on the leeward side, but increase the distance of audibility on the windward side. In some special cases the layers of dense and rare atmosphere may be so arranged that a sound wave may be totally refracted, or reflected, and may thus bound over a large region, being inaudible to observers at the ground but audible to those a few hundred feet above. It is thus that distant thunder and perhaps even fog signals are heard in one place and not in others near by. It does not seem likely that the noise heard at Kissimmee had any mysterious electrical, geological, or volcanic origin.

METEOROLOGICAL TABLES.

[Prepared by the Division of Records and Meteorological Data.]

Table I gives, for about 130 Weather Bureau stations making two observations daily and for about 20 others making only the 8 p. m. observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation.

Table II gives, for about 2,400 stations occupied by voluntary observers, the extreme maximum and minimum temperatures, the mean temperature deduced from the average of all the daily maxima and minima, or other readings, as indicated by the numeral following the name of the station; the total monthly precipitation, and the total depth in inches of any snow that may have fallen. When the spaces in the snow column are left blank it indicates that no snow has

fallen, but when it is possible that there may have been snow of which no record has been made, that fact is indicated by leaders, thus (....).

Table III gives, for about 30 Canadian stations, the mean pressure, mean temperature, total precipitation, prevailing wind, and the respective departures from normal values. Reports from Newfoundland and Bermuda are included in this table for convenience of tabulation.

Table IV gives, for 82 stations, the mean hourly temperatures deduced from thermographs of the well-known pattern manufactured by Richard Bros., Paris, described and figured in the Report of the Chief of the Weather Bureau, 1891-'92, p. 29.

Table V gives, for 67 stations, the mean hourly pressures as automatically registered by barographs of the pattern manufactured by Richard Bros., Paris, except for Washington, D. C., where Foreman's barograph is in use. Both instruments

are described in the Report of the Chief of the Weather Bureau, 1891-'92, pp. 26 and 30.

Table VI gives, for 136 stations, the arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism, described and illustrated in the Report of the Chief of the Weather Bureau, 1891-'92, p. 19.

Table VII gives the danger points, the highest, lowest, and mean stages of water in the rivers at cities and towns on the principal rivers; also the distance of the station from the river mouth along the river channel.

Table VIII gives the maximum, minimum, and mean readings of the wet-bulb thermometer for 135 stations, as determined by observations of the whirled psychrometer at 8 a. m. and 8 p. m., daily.

The difference between mean local time and seventy-fifth meridian time is also given in the table.

Table IX gives, for 133 stations, or all that make observations at 8 a. m. and 8 p. m., the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in

any geographical division one may obtain the average resultant direction for that division.

Table X gives the total number of stations in each State from which meteorological reports of any kind have been received, and the number of such stations reporting thunderstorms (T) and auroras (A) on each day of the current month.

Table XI gives, for 42 stations, the percentages of hourly sunshine as derived from the automatic records made by two essentially different types of instruments, designated, respectively, the thermometric recorder and the photographic recorder. The kind of instrument used at each station is indicated in the table by the letter T or P in the column following the name of the station.

Table XII gives the records of hourly precipitation as reported by stations equipped with automatic gauges, of which 37 are known as float gauges and 7 as weighing rain and snow gauges.

Table XIII gives the record of excessive precipitation at all stations from which reports are received.

Table XIV gives a record of the heaviest rainfalls for periods of five and ten minutes and one hour, as reported by regular stations of the Weather Bureau furnished with self-registering rain gauges.

Additional information concerning the tables will be found in the January, 1895, REVIEW.

MONTHLY WEATHER REVIEW.

FEBRUARY, 1895.

TABLE I.—Climatological data for Weather Bureau Stations, February, 1895.

Stations.	Elevation above sea-level, feet.	Length of record, years.	Pressure in inches.		Temperature of the air, in degrees Fahrenheit.					Humidity and precipitation.					Wind.			Monthly temperature data since opening station.												
			Mean pressure, a. m. and p. m.	Mean reduced.	Departure from normal.	Mean max. and min. +2.	Departure from normal.	Maximum.	Minimum.	Date.	Mean maximum.	Mean minimum.	Greatest daily range.	Mean temperature of the dewpoint.	Mean relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with .01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity.		Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Absolute maximum.	Year.	Absolute minimum.	Year.
																					Miles per hour.	Direction.								
New England.																														
Eastport	76	22	29.65	29.74	-.15	22.9	5.5	39	15	23	1.10	2.3	12	9,407	w.	72	e.	8	7	12	9	5.8	49	1886	-30	1876				
Portland, Me.	103	24	29.68	29.79	-.15	19.7	4.0	40	19	29	1.98	2.2	12	5,231	w.	36	ne.	8	9	8	11	5.4	58	1880	-15	1894				
Northfield	872	8	29.89	29.91	-.15	13.8	3.5	41	17	27	0.94	1.8	6	6,084	n.	36	n.	12	9	11	10	5.4	56	1880	-32	1889				
Boston	135	25	29.72	29.80	-.10	24.6	3.2	41	17	26	1.11	2.5	5	9,090	w.	47	sw.	8	10	7	11	4.9	64	1880	-1	1888				
Nantucket	14	9	29.86	29.87	-.23	25.6	5.4	44	1	30	1.56	1.6	6	9,322	n.	45	sw.	7	12	7	9	4.8	55	1880	-7	1888				
Woods Hole	17	15	29.87	29.90	-.17	25.0	5.6	47	0	30	1.02	2.4	4	11,949	n.	70	sw.	8	15	6	7	3.6	56	1880	-1	1888				
Vineyard Haven	27	15	29.87	29.90	-.17	25.0	5.6	47	0	30	1.02	2.4	4	11,949	n.	70	sw.	8	15	6	7	3.6	56	1880	-1	1888				
Block Island	19	13	29.80	29.82	-.17	22.4	6.4	46	4	26	1.20	5.0	6	7,474	w.	47	n.	8	15	7	6	4.1	67	1880	-7	1886				
Narragansett Pier	107	23	29.80	29.82	-.17	22.4	6.4	46	4	26	1.20	5.0	6	7,474	w.	47	n.	8	15	7	6	4.1	67	1880	-7	1886				
New Haven	45	25	29.86	29.93	-.15	22.1	7.7	42	3	30	0.43	3.6	6	5,935	nw.	47	ne.	8	8	14	6	4.8	65	1880	-6	1871				
New London	107	23	29.80	29.82	-.17	22.4	6.4	46	4	26	1.20	5.0	6	7,474	w.	47	n.	8	15	7	6	4.1	67	1880	-7	1886				
Mid. Atl. States.																														
Albany	85	22	29.85	29.96	-.13	19.0	7.2	42	3	30	1.63	0.9	6	6,031	w.	37	w.	8	10	8	10	5.4	60	1880	-18	1875				
New York	185	25	29.75	29.96	-.16	35.2	7.0	48	28	27	0.82	2.9	5	8,907	nw.	43	nw.	8	12	7	4	9	69	1880	-4	1873				
Harrisburg	877	7	29.62	30.06	-.10	39.0	9.5	54	28	29	0.54	2.2	5	7,252	w.	46	nw.	8	10	11	7	4.7	74	1880	-4	1885				
Philadelphia	117	25	29.88	30.01	-.12	35.4	9.1	53	28	29	0.39	1.8	6	8,406	nw.	38	w.	8	10	11	7	4.7	75	1874	-3	1885				
New Brunswick	117	25	29.88	30.01	-.12	35.4	9.1	53	28	29	0.39	1.8	6	8,406	nw.	38	w.	8	10	11	7	4.7	75	1874	-3	1885				
Baltimore	179	25	29.84	30.05	-.09	36.4	8.5	49	18	32	0.95	2.6	4	7,000	w.	42	w.	8	11	15	2	4.0	78	1874	-1	1886				
Washington	112	25	29.95	30.08	-.09	36.2	9.9	52	10	3	1.10	2.2	6	6,296	nw.	42	nw.	9	14	9	5	3.9	78	1874	-2	1886				
Cape Henry	21	21	29.32	30.11	-.08	29.4	11.5	71	8	29	1.93	1.6	8	3,500	nw.	28	nw.	8	14	9	5	4.2	75	1874	-1	1886				
Lynchburg	685	24	29.32	30.11	-.08	29.4	11.5	71	8	29	1.93	1.6	8	3,500	nw.	28	nw.	8	14	9	5	4.2	75	1874	-1	1886				
Norfolk	57	25	30.01	30.06	-.06	31.9	11.8	68	3	30	2.02	1.1	11	6,686	n.	42	nw.	7	18	6	4	3.0	81	1871	2	1885				
S. Atlantic States.																														
Charlottesville	773	17	29.27	30.13	-.02	32.9	12.7	69	28	41	1.87	2.5	7	4,966	sw.	26	nw.	7	14	5	9	4.5	79	1891	1	1885				
Hatteras	11	15	30.07	30.08	-.05	36.0	11.7	68	7	41	3.73	0.8	10	13,031	nw.	57	nw.	8	12	9	7	4.9	78	1880	11	1885				
Kittyhawk	9	19	30.03	30.04	-.09	33.3	12.2	64	11	8	3.50	0.3	9	11,911	n.	56	n.	8	16	5	7	4.0	80	1880	5	1886				
Raleigh	388	9	29.69	30.13	-.05	32.6	12.4	71	28	45	2.06	1.4	8	5,399	nw.	33	nw.	8	13	7	8	4.4	80	1880	4	1885				
Wilmington	78	25	30.03	30.12	-.02	37.4	13.8	74	28	45	2.28	1.0	8	6,365	nw.	46	nw.	8	15	3	10	4.8	81	1880	10	1885				
Charleston	52	25	30.11	30.16	-.01	41.1	12.6	76	28	46	4.47	1.0	9	5,887	w.	36	w.	7	12	8	8	5.0	80	1880	10	1885				
Columbia	180	24	29.96	30.17	-.03	37.3	12.7	75	28	46	3.02	0.6	8	3,908	w.	31	nw.	7	14	4	10			82	1880	8	1886			
Augusta	98	25	30.05	30.16	-.01	42.8	13.0	78	28	47	3.78	0.7	9	6,504	nw.	42	nw.	7	11	9	8	4.9	84	1881	12	1885				
Savannah	43	24	30.11	30.16	-.01	47.6	12.2	76	28	47	3.61	0.4	7	5,609	w.	33	w.	7	12	5	11	5.3	86	1881	14	1885				
Jacksonville	28	8	30.11	30.14	-.03	38.4	8.8	84	2	66	2.25	0.2	8	6,759	nw.	33	w.	19	14	7	7	4.5	87	1883	27	1885				
Florida Peninsula.	22	15	30.13	30.17	-.02	43.9	7.9	80	1	68	2.62	0.9	9	8,712	ne.	39	nw.	7	13	6	9	5.1	87	1874	40	1885				
Jupiter	44	8	30.13	30.17	-.02	43.9	7.9	80	1	68	2.62	0.9	9	8,712	ne.	39	nw.	7	13	6	9	5.1	87	1874	40	1885				
Key West	1,181	17	28.95	30.20	-.02	34.4	13.6	71	28	42	3.61	0.2	7	8,903	w.	72	e.	15	10	9	4	3.6	87	1880	19	1885				
Tampa	36	16	30.14	30.20	-.04	44.0	13.0	72	36	52	2.01	3.1	8	7,739	nw.	48	nw.	7	13	4	11	4.7	78	1891	0	1885				
Titusville	57	25	30.16	30.24	-.08	43.5	12.0	73	37	52	2.48	1.4	9	6,391	n.	49	ne.	1	13	6	9	5.1	78	1883	11	1885				
Atlanta	257	25	29.98	30.22	-.04	40.0	13.5	75	37	49	3.56	1.8	9	4,846	nw.	36	nw.	7	12	9	5	5.0	80	1887	12	1885				
Pensacola	358	6	29.82	30.23	-.10	37.9	15.7	76	36	47	1.63	5.1	10	4,385	ne.	33	nw.	7	9	5	14	5.9	83	1880	8	1885				
Mobile	254	24	29.95	30.22	-.07	40.6	12.8	74	37	49	1.70	3.2	10	5,315	ne.	37	nw.	7	11	4	13	5.8	83	1883	4	1885				
Montgomery	54	25	30.15	30.21	-.09	45.0	13.5	74	37	49	3.92	0.4	12	7,358	ne.	40	nw.	7	11	10	6.0	82	1880	16	1885					
Meridian	9	9	29.96	30.24	-.11	39.6	12.2	74	27	47	2.35	1.3	8	5,969	se.	38	nw.	3	14	11										
Vicksburg	249	24	29.96	30.24	-.11	39.6	12.2	74	27	47	2.35	1.3	8	5,969	se.	38	nw.	3	14	11										
New Orleans	492	13	29.74	30.25	-.17	33.0	10.1	74	27	47	0.76	3.9	8	5,299	se.	38	nw.	7	9	8	17	7.5	81	*	-4	1885				
Port Eads	302	16	29.92	30.26	-.12	34.6	11.6																							

Stations.		Elevation above sea-level, feet.	Length of record, years.	Mean pressure, 8 a. m. and 5 p. m. + 2.	Mean reduced.	Departure from normal.	Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean temperature of the day-point.	Mean relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with 0.1 or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Direction.	Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Absolute maximum.	Year.	Absolute minimum.	Year.
St. Louis, Mo.	613	24	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	359	24	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	644	16	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	534	22	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	571	25	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	963	7	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	1,336	10	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	1,123	25	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	1,165	6	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	1,470	30	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	1,310	14	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	2,477	15	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5	38	11	76	0.06	1.0	3	5,337	sw.	34	sw.	20	18	5	5	3.7	67	1882	-81	1875
St. Louis, Mo.	2,374	18	22	29.53	30.24	-13	15.6	-6.7	62	18.8	9.3	62	22	5																			

NOTE.—The data at stations having no departures are not used in computing the district averages. Letters of the alphabet denote number of days missing from the record.

* Two or more directions, dates, or years. † Received too late to be considered in departures, etc. ‡ Normals of temperature and extremes of temperature combined with Fort Washakie records. § Normals of temperature and precipitation and extremes of temperature combined with Fort Sully records.

TABLE II.—Meteorological record of voluntary and other cooperating observers, February, 1895.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Alabama.						Arkansas.						California—Cont'd.					
Alico	76	11	43.2	Ins.	4.5	Arkadelphia	72	0	35.9	1.01	T.	Hendersons Ranch	76	30	52.0	0.95	
Ashville	74	2	34.3	7.0		Arkansas City	75	0	36.1	0.80	6.0	Hollister	76	30	52.0	1.49	
Bermuda	75	9	43.4	1.50	5.0	Blanchard Springs	73	—2	36.0	1.99	3.2	Hueneme	66	27	48.5	3.87	
Brewton	77	9	42.6	2.63	2.0	Brinkley	72	—5	33.6	0.41	1.4	Humboldt L. H.	96	38	62.1	0.00	
Carrollton	66	6	37.7	4.28	6.5	Camden	76	—8	38.2	0.56	2.1	Hydesville	76	38	50.2	5.57	
Citronelle	71	12	44.0	3.35	6.5	Camden	73	—6	34.2	1.88		Iowa Hill	69	30	45.8	6.22	
Clalborne Landing	75	10	40.6	4.37	5.0	Conway	73	—		0.10	1.0	Jackson	71	27	48.8	0.32	
Collinsville	74	8	45.2	5.53	4.2	Corning	70	—11	30.6	0.17	T.	Jolon	69	32	49.4	1.15	
Cordova	73	—2	31.8	1.51	10.0	Dallas	72	—7	33.6	0.62	4.5	Keeler	67	32	48.1	2.71	
Daphne	74	9	41.4	3.85	8.1	Dardanelle	71	—4	33.8	1.20	3.0	Kennedy Gold Mine	69	34	50.2	5.39	
Decatur	73	—1	33.8	1.43	9.0	Elon	70	—		0.27	1.6	Kernville	73	32	50.4	0.35	
Demopolis	71	10	41.9	2.59	2.2	Malvern	65	—11	29.6	0.87	2.3	King City	70	34	53.8	0.94	
Eufaula	74	9	41.4	3.85	8.1	Mossville	64	—11	29.5	0.73	6.0	Kingsburg	67	35	49.2	2.32	
Evergreen	72	—1	33.8	1.43	9.0	Mount Nebo	71	—4	33.8	1.20	3.0	Lagrange	73	40	55.2	2.60	
Florence	72	8	39.6	2.60	3.5	New Gascony	78	—5	33.4	0.30		La Porte	58	23	37.0	6.65	17.5
Fort Deposit	70	4	36.0	2.38	5.8	Newport	74	—4	32.3	0.24	2.0	Lemoore	73	33	52.6	0.74	
Gadsden	72	7	37.2	3.37	4.1	Newport	74	—4	32.3	0.24	2.0	Lick Observatory	64	32	45.6	3.08	
Greensboro	74	1	37.2	3.37	4.1	Ozark	75	—4	33.4	T.	T.	Lime Kiln	74	34	53.8		
Healing Springs	74	7	36.9	2.48	5.5	Pocahontas	73	—17	29.1	0.81	3.6	Lime Point L. H.	71	33	52.2	2.65	
Highland Home	71	8	40.8	2.40	4.0	Rison	72	—0	34.3	0.74	3.0	Lodi	71	33	52.2	2.35	
Jasper	70	3	32.4	1.65	4.5	Rogers	69	—8	31.1	0.37		Los Alamos	70	38	51.2	1.20	
Livingston	74	7	39.0	2.03	4.5	Russellville	72	—6	34.0	0.50	1.0	Los Gatos	73	32	45.4	1.95	
Lock No. 4	73	—2	33.4	0.91	8.0	Stuttgart	73	1	35.2	0.76	2.5	Malakoff Mine	73	32	45.4	7.28	
Madison Station	74	—2	32.0	3.65	9.0	Texarkana	74	4	38.4	0.58		Mammoth Tank	85	42	58.6	T.	
Maple Grove	72	0	37.2	2.70	5.0	Washington	72	—1	36.6	0.98	2.0	Manzana	70	28	46.4	0	
Marion	72	0	37.2	2.70	5.0	Winslow	65	—14	29.2	0.29	2.0	Mare Island L. H.	70	32	48.5	5.66	
Mobile	72	0	37.2	2.70	5.0	Witts Springs	65	—14	29.2	0.29	2.0	Merced	69	36	53.2	1.71	
Montgomery	72	0	37.2	2.70	5.0	Adin	56	—5	30.9	0.79	2.2	Middletown	70	27	48.4	3.40	
Mount Willing	74	7	40.0	2.65	3.0	Ager	66	20	41.2	0.80	6.0	Mills College	73	45	55.9	2.30	
Newbern	73	7	37.2	2.68	3.7	Agnew	72	30	51.3	0.16		Milton (near)	72	32	49.1	1.39	
Newburg	75	—2	33.7	2.18	9.0	Arlington Heights	81	30	54.2	1.01		Modesto	72	32	49.1	1.39	
Newburg	75	—2	33.7	2.18	9.0	Athlone	75	35	51.5	2.42		Mohave	72	33	50.2	0.53	
Oneonta	69	11	34.7	2.79	6.0	Bakersfield	79	34	57.0	0.53		Mokelumne Hill	68	30	48.2	4.40	
Opelika	74	7	39.5	2.76	4.3	Ballast Point L. H.	73	22	46.4	0		Monterey	68	30	52.4		
Oxanna	68	2	33.7	2.06	5.0	Barstow	73	22	46.4	0		Mountain View	72	40	54.1	1.37	
Pine Apple	72	4	40.9	3.22	3.5	Bear Valley	67	40	52.3	3.25		Mount Glenwood	72	40	54.1	2.15	
Pushmataha	73	8	39.3	2.72	6.0	Berkeley	67	40	52.3	3.25		Mutah Flat	72	40	54.1	0.78	
Rock Mills	68	4	35.3	2.66	5.4	Bethany	66	36	51.8	0.61		Napa	72	35	53.4	2.92	
Scottsboro	75	—1	33.8	3.92	11.5	Bishop	69	22	43.6	0.38	0.7	Needles	80	36	50.0	0.08	
Selma	70	9	36.8	4.08	4.3	Bishop Creek	69	22	43.6	0.38	0.7	Nevada City	71	27	46.0	5.53	
Starlington	70	9	36.8	4.08	4.3	Boca	60	—15	29.3	1.30	7.0	Newcastle	66	36	49.9	3.42	
Sturdevant	70	9	36.8	4.08	4.3	Bowmans Dam	78	35	53.7	1.55		Newhall	82	29	53.0	0.31	
Tallassee Falls	70	9	36.8	4.08	4.3	Borden	78	35	53.7	1.55		Nordhoff	75	32	51.6	0.46	
Tuscaloosa	72	6	36.2	2.24	3.5	Callente	72	36	53.7	3.10		Oakland	68	36	52.1	3.09	
Union	77	4	38.3	2.62	6.0	Calloway Canal	76	31	54.0	0.40		Ogilby	85	41	62.0		
Union Springs	71	6	38.5	3.34	4.0	Cape Mendocino L. H.	58	12	35.0	1.09	9.8	Oleta	69	32	46.0	5.75	
Uniontown	72	8	40.2	2.55	4.3	Cedarville	74	41	56.2	2.55		Ontario	79	36	55.0	1.64	
Valley Head	71	—5	32.0	3.25	9.5	Centerville	68	34	46.6	6.55		Orangevale	68	34	51.0	2.42	
Warrior	71	—5	32.0	3.25	9.5	Chico	78	32	52.4	1.01		Orland	75	35	51.2	2.66	
Wetumpka	71	—5	32.0	3.25	9.5	Chico	78	36	55.6	2.58		Ormond	75	35	51.2	5.34	
Wilsonville	71	—5	32.0	3.25	9.5	Claremont	76	34	52.0	1.91		Oroville	74	37	52.6	0.85	
Alaska.						Cloverdale	74	35	56.2	5.05		Palermo	75	30	50.8	2.83	
Coal Harbor	44	3	28.6	3.45	8.8	Colegrove	73	34	53.1	2.83		Paso Robles	70	30	49.8	0.47	
Killisknoo	45	4	30.4	7.30	35.0	Corning	65	28	48.8	4.80		Petaluma	78	33	52.2	2.67	
Arizona.						Crescent City	65	28	48.8	4.80		Piedras Blancas L. H.				1.66	
Arizona Canal Co. Dam	83	29	56.6	T.		Crescent City L. H.	65	28	48.8	4.80		Pigeon Point L. H.				1.33	
Benson	76	25	45.9	0.00		Davisville	89	34	60.6	1.82		Pilot Creek				8.23	4.0
Bisbee	72	16	43.2	0.08		Delano	70	35	52.5	0.63		Placerville	65	27	45.6	5.07	
Buckeye	90	28	57.4	0.10		Delta	76	30	48.2	7.03		Point Arena L. H.				0.66	
Calabasas	78	24	46.0	0		Drytown	72	35	51.8	3.24		Point Bonita L. H.				3.53	
Casa Grande	80	36	53.2	0		Dunnigan	74	32	54.2	0.76		Point Conception L. H.				3.55	
Dragon Summit	80	36	53.2	0		Durham	70	34	51.9	2.38		Point Fermin L. H.				0.67	
Dudleyville	78	20	47.6	0.01	0.1	East Brother L. H.				0.96		Point George L. H.				0.50	
Eagle Pass	77	17	36.2	0.69	T.	Edgewood	57	19	37.8	0.36		Point Loma L. H.				2.20	
Farley Camp	85	26	54.8	0.35		Edmonton	55	21	34.9	5.83	28.0	Point Lobos	64	41	51.9	0.74	
Flagstaff	56	—10	28.2	2.40	34.0	Escondido	85	35	54.6	0.95		Point Montara L. H.				2.30	
Fort Apache	68	10	37.8	0.72		Evergreen				1.73		Point Pinos L. H.				0.38	
Fort Grant	72	18	42.7	0.37		Fall Brook	81	40	52.2	1.59		Point Reyes L. H.				1.63	
Fort Huachuca	73	17	46.6	0.08		Florin	72	33	52.5	1.48		Point Sur L. H.				1.91	
Gila Bend	83	30	56.1	0		Folsom City	72	38	52.7	2.59		Pomona (near)	32	32	56.6	1.39	
Holbrook	70	9	37.4	0.22	1.0	Fordyce Dam				12.53	90.0	Portersville	72	38	54.8	1.54	
Keams Canyon	67	—15	32.2	1.02	7.2	Fort Rose				6.02		Poway	72	34	48.8	1.08	
Maricopa	85	35															

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>California—Cont'd.</i>						<i>Colorado—Cont'd.</i>						<i>Florida—Cont'd.</i>					
San Luis Obispo.	69	37	52.9	1.90	Ins.	Hugo (near)†.	64	-16	22.7	0.42	0.3	Kissimmee†.	80	19	57.0	3.34	
San Mateo.*.	76	30	48.5	0.33		Husted†.	66	-25	25.3	0.79	6.5	Lake City†.	75	15	49.7	4.02	1.0
San Miguel.*.	76	34	59.2	0.63		Julesburg†.	68	-29	17.0	0.39	2.0	Manatee†.	80	23	53.4	5.02	
San Miguel Island†.	76	31	50.0	2.70		Kit Carson.*.	62	-12	25.4			Merritts Island†.	76	22	56.5	3.29	
Santa Ana.*.	78	40	57.3	0.90		La Jara†.	62	-12	26.7	0.30	3.5	Moseley Hall†.	74	12	46.1	3.38	T.
Santa Barbara.	80	38	55.8	0.67		Lake Moraine†.	45	-23	18.6	0.55	8.5	Mullet Key†.	73	29	54.6	1.85	T.
Santa Barbara L. H.				0.58		Laporte.				1.63	5.5	Myers†.	85	30	57.8	5.82	
Santa Clara.*.	71	35	53.1	1.24		Las Animas†.	77	-23	22.4	0.70	2.0	New Smyrna†.	77	17	50.8	2.27	
Santa Clara.*.	78	32	52.0	1.10		Lay†.*.	48	-34	15.8	0.89	8.9	Oak Hill.*.	75	21	54.9		
Santa Cruz.*.	76	35	54.8	4.07		Le Roy†.	60	-24	18.6	0.88	4.3	Ocala.*.	75	16	49.8	2.24	
Santa Cruz L. H.				3.01		Leslie.				0.30	3.0	Orange City†.	78	18	52.8	0.77	
Santa Maria.	78	35	50.3	1.22		Loveland.				1.36	8.0	Orange Park.	75	14	46.6	2.84	
Santa Monica.*.	83	32	54.5	0.28		Longmont†.	65	-29	23.6	1.50	12.5	Orlando†.	81	19	54.8	3.11	
Santa Paula.*.	79	31	51.4	0.60		Manhattan.				1.43	17.0	Pensacola.				3.0	
Santa Rosa.*.	70	32	53.5	3.35		Meeker†.	58	-34	30.4	1.07	9.2	Plant City†.	79	21	54.8	3.44	
Saticoy†.				0.74		Minneapolis†.	75			0.55	2.0	St. Francis Barracks.	75	16	49.6	3.06	
Shasta Springs†.	60	25	40.3	4.90	3.0	Monte Vista.	58	-20	22.5	0.36	2.0	Tallahassee†.	75	11	44.6	3.22	2.0
Sneddens Ranch.				0.49		Moraine†.	56	-24	19.2	1.00	18.5	Tampa.				T.	
S. E. Farallone L. H.				1.44		Ouray†.	47	-10	23.6	2.52	25.3	Tarpon Springs†.	76	22	51.8	3.52	0.1
Stanford University.	70	34	51.4	1.45		Pagoda (near)†.	47	-34	15.0	1.65	16.5						
Sumner†.	68	34	52.2	1.70		Paonia†.				0.60	6.0						
Sumnerdale†.				5.29	7.0	Parachute†.	50	-23	30.6	0.30	2.0						
Susanville.*.	53	21	35.2	3.00	10.0	Pueblo.					6.8						
Sutter Creek.*.	66	28	45.0	2.35		Rangely†.	47	-37	13.2	1.03	3.2						
Tecoma Dam.*.	78	24	44.8	2.00		Red Cliff.				1.05	16.5						
Tehama.*.	74	34	53.1	2.85		Rico.				3.63	36.3						
Tejon Ranch.				3.12		Rocky Ford†.	71	-23	24.4	0.65	3.5						
Templeton.*.	73	30	51.7	0.86		Ruby†.				8.20	83.0						
Trinidad L. H.				3.30		Saguache†.	55	-13	22.9	0.80	1.0						
Truckee.*.	44	-4	26.3	1.92	16.0	St. Cloud†.				1.30	13.0						
Tulare.*.				1.40		San Juan†.	45	-27	15.0	0.72	7.2						
Tulare.*.	84	32	56.5	1.23		San Luis†.	57	-34	22.1	0.76	8.0						
Turlock.*.	71	29	50.7	1.25		Santa Clara.*.	54	-31	21.1	3.00	30.0						
Ukiah†.	77	29	49.4	5.17		Seibert†.				1.28	2.7						
Upper Lake.	75	32	51.6	4.15		Smoky Hill Mine†.	60	-17	24.8	1.90	19.0						
Upper Mattole.*.	75	30	51.5	8.88		Springfield†.				0.31	1.5						
Yacaville.*.	74	38	52.6	3.04		Spring Gulch†.				1.12	14.5						
Ventura†.	83	37	55.7	1.00		Stamford.*.	55	-14	19.8	1.45	14.5						
Visalia.				1.68		Surface Creek†.	58	-10	26.4	1.10	8.0						
Volcano Springs.*.	82	42	66.7	0.00		Thon†.	71	-17	26.2	0.39	3.5						
Walnut Creek.	75	27	50.4	2.35		T. S. Ranch†.	57	-4	27.1	-0.83	7.0						
West Point†.				0.67		Twin Lakes.				1.88	21.8						
Wheatland.	72	34	52.0	2.06		Vernon†.	67	-23	22.0	1.53	3.2						
Williams.*.	75	35	52.0	1.28		Vilas.				0.42	2.0						
Willows.*.	75	35	51.3	1.65		Watkins.*.	51	-15	21.2								
Wilmington.*.	80	43	59.8			Yuma.				1.70	7.0						
Wire Bridge.*.	71	30	50.2	3.15													
Yerba Buena L. H.				2.42													
Yreka†.	65	17	40.0	1.08	6.0												
Yuba City.*.	69	39	55.4	1.75													
Engineers Quarters†.				2.01	2.8												
Morses House†.				5.85													
Grass Valley†.				3.39	4.3												
Green Valley†.				1.94	8.5												
Deep Creek†.				2.13	2.5												
Holcomb Creek†.				0.61	1.0												
Squirrel Inn†.				5.35	4.0												
Tunnel No. 2†.				0.92	1.6												
<i>Colorado.</i>						<i>Connecticut.</i>						<i>Delaware.</i>					
Abbott.	40	-15	17.0	0.98	4.2	Bridgeport.*.	47	-3	22.6	1.10	10.3	Dover†.	56	-1	24.9	1.55	12.0
Alma.*.	52	-25	18.8	0.57		Canton.	50	-12	19.8	0.66	9.5	Kirkwood.*.	62	1	27.6	1.60	11.5
Antlers†.	58	-9	25.0	0.66	7.6	Colchester.	47	-6	21.3	0.51	6.5	Milford.	62	-1	25.4	1.93	8.0
Boulder†.				1.43	11.5	Falls Village.				1.36	13.5	Millsboro.	56	-4	22.5	1.08	12.0
Box Elder.	50	-35	12.2	2.31		Greenfield Hill.				1.06	10.5	Newark.	61	-2	25.3	1.63	12.5
Breckenridge†.	64	-18	18.0			Hartford.*.	46	-8	21.4		13.0	Seaford†.	57	-2	26.5	1.95	11.7
Byers.*.	67	-18	27.6			Lake Konomoc.				0.46		Wilmington†.					
Canyon†.	35	-18	8.0	6.00	60.0	Middletown.	49	-14	20.9	0.99	12.0						
Climax.*.				1.20		New Haven.				10.7							
Collbran.	62	-19	24.6	0.71	3.9	New London.	45	-12	17.1	0.65	8.0						
Colorado Springs†.	61	-30	20.3	1.07	3.0	North Grosvenor Dale.	49	-5	20.5	0.49	10.0						
Copet†.	66	-31	18.2	0.26	5.0	Southwalk.	45	-6	20.6	1.13	7.0						
Craig.	63	-30	21.6	0.62	1.2	Southington.*.	49	-5	20.5	0.73	8.0						
Crook.	62	-14	27.9	0.04	0.4	South Manchester.	45	-12	19.4	0.63	7.0						
Deer Trail.*.				3.5		Storrs.	45	-11	19.1								
Delta†.				9.0		Thompson.*.	48	-7	21.4	1.02	7.2						
Denver.	56	-17	20.2	0.96		Voluntown†.				1.06	9.4						
Divide Exper. Station.	65	-5	28.7	0.13		Wallingford†.	45	-10	21.1	1.92	15.0						
Downing†.	54	-22	25.0	0.90	9.0	Waterbury.				1.19	13.5						
Dumont†.	54	-12	27.9	1.38	11.0	West Simsbury.	45	-8	19.5	1.10	10.5						
Durango†.	67	-18	24.4			Windsor.											
First View.*.				1.70	10.0												
Fleming.	62	-28	21.1	1.52	6.0												
Fort Collins†.				0.22	2.2												
Fox.	58	-12	24.4	0.87	6.9												
Garnett.				1.60	16.6												
Glen Eyrie†.	61	-14	25.3	0.80	9.0												
Golden.	58	1	29.5	1.01	10.5												
Gold Hill.*.				0.32													
Grand Junction†.	38	-44	5.7	0.32													
Greeley†.				0.29													
Gunnison†.				0.67													
Holly.				0.71	2.1												
Holyoke.*.																	
Holyoke.*.																	
Hugo.*.	65	-22	24.8														

MONTHLY WEATHER REVIEW.

FEBRUARY, 1895.

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Idaho—Cont'd.						Indiana—Cont'd.					
Payette†	56	-5	29.8	0.30	2.0	Logansport†	63	-15	18.8	0.82	7.0
Salubria†	52	-22	20.4	0.90	6.1	Madison†	68	-16	24.5	0.75	7.5
Swan Valley†	50	-28	18.5	0.39	5.5	Marion†	65	-14	24.4	0.44	4.4
Three Creek†	60	-12	28.0	0.78	7.8	Marysville†	63	-16	17.9	0.51	4.0
Warren†	60	-29	20.0	0.30	3.0	Mauzy†	63	-16	18.1	0.61	3.8
Illinois.						Mount Vernon†	62	-9	20.9	0.15	1.4
Albion†	67	-15	24.0	0.15	1.5	Muncie†	64	-16	17.5	0.82	7.0
Alton†	64	-22	15.4	1.45	1.5	Plymouth†	64	-16	17.5	0.60	6.0
Aurora†	62	-19	14.8	0.50	4.1	Princeton†	65	-13	23.7	0.63	4.0
Beardstown†	62	-24	18.8	0.08	0.8	Rockville†	68	-20	19.5	0.40	0.3
Bloomington†	65	-14	19.2	0.39	1.7	Rushville†	67	-14	25.3	0.45	4.5
Braidwood†	64	-22	17.7	0.36	3.0	Scottsburg†	68	-14	23.1	1.06	6.0
Bushnell†	64	-18	22.5	1.12	5.0	Seymour†	65	-15	20.7	0.60	4.0
Calo†	64	-15	20.3	0.89	9.0	Shelbyville†	61	-14	17.0	0.82	7.0
Carlinville†	64	-15	20.3	0.95	7.0	South Bend†	65	-18	20.7	0.45	4.6
Carlyle†	64	-15	20.3	0.95	7.0	Sunman†	68	-17	23.4	0.38	4.0
Carrollton†	58	-24	12.8	0.70	14.0	Terre Haute†	48	-18	15.2	1.30	13.0
Chemung†	64	-15	20.3	0.95	7.0	Valparaiso†	70	-20	23.9	0.80	5.0
Chester†	64	-15	20.3	0.95	7.0	Vevay†	62	-16	20.5	0.50	5.0
Chicago†	61	-22	16.0	0.30	4.0	Vincennes†	70	-16	23.0	0.88	5.2
Clear Creek†	64	-15	20.3	0.95	7.0	Worthington†	70	-16	23.0	0.88	5.2
Cordova†	68	-21	20.7	0.94	2.9	Iowa—Cont'd.					
Decatur†	62	-21	18.8	0.43	2.0	Abilene†	72	-14	28.1	1.13	1.5
Dixon†	62	-21	18.8	0.43	2.0	Allison†	70	-18	30.5	1.31	3.2
Duquoin†	60	-30	18.3	0.10	9.0	Altoona†	62	-10	23.7	0.27	2.2
East Peoria†	62	-18	20.8	0.90	3.0	Atchison†	71	-16	25.8	0.56	1.5
Edinburg†	65	-20	20.6	0.30	3.0	Bellevue†	69	-20	33.3	2.60	3.0
Emden†	58	-20	16.0	0.30	3.0	Beloit†	64	-20	30.2	1.49	2.4
Evansville†	49	-16	13.6	0.30	3.0	Blaine†	69	-13	25.8	0.40	1.0
Fort Sheridan†	66	-22	15.6	0.10	1.5	Burlington†	67	-20	22.4	0.63	1.5
Galva†	64	-18	15.6	0.30	3.0	Colby†	69	-14	25.7	1.22	2.0
Gilman†	73	-11	29.1	0.88	3.4	Coldwater†	73	-12	27.3	2.20	1.2
Golconda†	63	-18	20.8	0.22	5.4	Collyer†	69	-17	25.0	0.18	1.2
Grafton†	63	-18	20.8	0.22	5.4	Columbus†	69	-17	25.0	0.18	1.2
Greenville†	68	-20	20.7	1.20	5.0	Concordia†	70	-14	25.1	0.25	1.6
Griggsville†	71	-9	26.6	1.20	5.0	Coolidge†	71	-13	26.2	1.12	1.6
Halliday†	68	-16	21.5	0.32	3.5	Cunningham†	65	-10	28.0	0.33	1.2
Havana†	62	-8	25.4	0.45	4.5	Dodge City†	65	-14	22.8	2.27	1.6
Herrins Prairie†	73	-12	24.6	0.19	5.0	Downs†	66	-10	27.5	1.70	1.0
Jordan Grove†	50	-17	14.1	0.45	5.0	Elk City†	65	-14	22.8	2.27	1.6
Kankakee†	62	-16	16.4	0.31	2.0	Ellinwood†	66	-10	27.5	1.70	1.0
Lagrange†	64	-17	19.1	0.16	3.5	Emporia†	73	-11	25.6	1.42	2.2
Lexington†	63	-17	22.6	0.95	5.9	Englewood†	71	-17	23.0	1.18	1.3
Louisville†	64	-18	20.4	0.71	1.8	Eureka Ranch†	67	-16	24.7	0.51	4.5
Martinsville†	66	-16	22.6	0.71	1.8	Fort Riley†	73	-16	25.9	1.20	2.0
Mascoutah†	64	-11	25.1	0.18	1.7	Fort Scott†	73	-16	25.9	1.20	2.0
Mattoon†	67	-22	17.5	0.50	4.1	Frankfort†	71	-14	25.0	3.15	0.3
Monmouth†	65	-20	18.2	1.14	5.0	Garden City†	64	-13	22.1	1.30	1.0
Mount Carmel†	65	-16	24.4	0.45	4.4	Garfield†	63	-12	23.7	0.33	2.0
Mount Pulaski†	66	-18	18.7	0.95	9.0	Gibson†	75	-16	23.4	1.47	1.0
Olney†	58	-26	16.4	0.85	4.0	Girard†	70	-10	24.8	1.08	1.0
Oregon†	60	-24	18.5	0.70	6.2	Gove†	68	-12	27.1	0.25	3.5
Oswego†	64	-20	14.6	1.12	4.2	Grenola†	74	-16	27.2	1.51	0.4
Ottawa†	68	-20	20.2	0.50	3.7	Grinnell†	65	-5	26.8	0.88	1.1
Paris†	68	-22	19.0	0.37	2.2	Halstead†	68	-15	24.3	1.47	1.1
Peoria†	68	-22	19.0	0.37	2.2	Horton†	75	-14	26.0	2.42	3.0
Philos†	64	-18	17.8	0.46	3.4	Hutchinson†	75	-17	21.8	0.65	2.0
Rantoul†	57	-23	12.4	0.98	6.2	Ida†	70	-23	23.5	0.76	2.2
Riley†	65	-22	14.1	0.37	2.1	Jaqua†	69	-12	26.0	1.90	T.
Rockford†	60	-20	20.1	1.05	2.1	Johnson†	72	-14	27.3	1.45	T.
Rushville†	60	-10	26.0	0.30	2.8	Kiowa†	61	-13	22.5	0.67	0.5
St. John†	60	-10	26.0	0.30	2.8	Lakin†	67	-14	26.0	0.61	0.9
Springfield†	57	-25	16.3	0.30	3.0	Lawrence†	70	-14	24.8	2.40	T.
Streator†	59	-18	15.7	0.80	1.8	Lebo†	70	-17	24.2	1.54	T.
Sycamore†	66	-18	18.9	0.63	3.7	Macksville†	63	-17	24.2	1.39	2.0
Tuscola†	64	-20	15.8	0.39	5.0	McPherson†	71	-15	25.8	1.14	0.8
Walnut†	59	-25	12.9	0.29	4.2	Manhattan†	66	-11	24.8	1.84	2.0
Winnebago†	59	-25	12.9	0.29	4.2	Manhattan C†	68	-16	24.1	1.16	2.1
Zion†	59	-25	12.9	0.29	4.2	Minneapolis†	71	-20	24.2	0.55	2.5
Indiana.						Morland†	72	-10	27.1	1.99	T.
Angola†	60	-14	17.9	0.74	5.9	Morton†	70	-13	27.8	1.42	T.
Ashboro†	67	-19	21.8	0.92	4.0	Mount Hope†	56	-11	23.2	1.42	T.
Butterville†	68	-16	19.4	0.47	4.0	Ness City†	69	-25	30.4	0.89	0.8
Cambridge City†	63	-9	25.9	0.60	4.5	New England Ranch†	64	-15	25.5	0.83	5.0
Cannelton†	66	-18	20.4	0.51	3.3	Olathe†	68	-20	25.5	0.30	1.6
Clinton†	64	-14	17.8	0.65	5.5	Oswego†	68	-15	24.0	2.74	1.0
Columbia City†	62	-15	21.2	0.68	4.2	Pleasant Dale†	75	-15	22.3	2.60	1.0
Columbus†	64	-15	19.3	0.68	7.5	Quinter†	65	-11	28.5	1.00	0.1
Connersville†	68	-12	24.9	0.90	4.2	Rome†	67	-15	24.4	1.29	3.5
Degonia Springs†	61	-18	17.9	0.47	4.7	Salina†	67	-12	27.8	0.33	T.
Delphi†	67	-14	25.3	0.48	1.8	Sedan†	70	-11	27.2	1.00	T.
Edwardsville†	71	-11	24.6	1.30	5.2	Sharon Springs†	68	-12	24.2	0.30	1.0
Evansville†	65	-12	20.4	1.32	4.2	Silver Lake†	70	-13	26.8	2.19	0.5
Farmland†	66	-16	21.0	1.21	12.0	Wa Keeney†	79	-13	26.8	0.62	1.0
Franklin†	56	-19	15.4	0.49	4.8	Wakefield†	68	-15	24.8	1.60	8.5
Hammond†	68	-13	25.4	1.14	8.5	Wallace†	68	-15	24.8	1.39	T.
Huntingburg†	64	-13	18.0	0.55	5.5	Wamego†	67	-13	31.5	0.7	0.7
Indianapolis†	66	-15	23.7	0.31	2.9	Wellington†	60	-24	13.1	0.43	3.2
Jasper†	67	-12	25.6	0.31	2.9	Wichita†	66	-12	27.4	0.17	0.2
Jeffersonville†	65	-16	19.4	0.47	3.0	Winfield†	70	-14	23.6	0.73	T.
Kokomo†	67	-13	24.1	0.30	4.0	Winona†	66	-12	27.4	0.17	0.2
Lafayette†	66	-20	18.2	0.56	3.4						
Logansport†	63	-15	18.8	0.82	7.0						

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Kansas—Cont'd.						Maine—Cont'd.						Massachusetts—Cont'd.					
Yates Center†	68	-13	24.8	0.44	1.5	Cornish* ¹	42	-14	18.1	1.40	14.0	Ludlow Center	40	-10	15.4	1.06	14.5
Kentucky.						Easton†	42	-14	16.2			Lynn a	42	-10	21.2	1.11	
Alpha†	67	-10	28.4	1.19	14.0	Eastport	42	-13	19.2	0.90	9.0	Lynn b	42	-6	23.1		
Blandville†	74	-11	27.4	0.58	2.5	East Summer†	42	-22	16.6	0.34	11.8	Mansfield* ¹	50	-8	21.6	1.30	11.5
Bowling Green a* ¹	68	-11	26.5	0.65	5.8	Fairfield	46	-17	14.8	0.95	9.5	Middleboro	47	-6	22.0	1.36	9.5
Bowling Green b†	77	-5	29.0	0.47	9.0	Farmington† ²	46	-17	14.8	0.95	9.5	Milton	46	-8	23.0	1.08	9.5
Burnside†				1.12	12.0	Gardiner	43	-25	16.1	1.64	16.2	Monroe	44	-19	13.6	1.64	22.0
Caddo†	60	-18	24.8			Houlton†	46	-21	12.6	1.30	13.0	Monson	51	-15	19.2	0.95	11.0
Canton* ¹	75	-8	30.1	0.53	5.3	Indian Stream	43	-21	13.0	1.08	15.8	Mount Nonotuck				1.35	11.0
Carrollton†	74	-13	25.1	0.50	5.0	Kineo†	34	-18	14.1	1.35	30.5	Mystic Lake				0.88	
Cattlettsburg* ¹	59	-8	26.8	0.92	9.0	Lewiston	45	-20	16.3	0.63	6.8	Mystic Station				0.75	
Cromwell* ¹	56	-10	30.5			Madison* ¹	40	-22	17.3		17.0	Nantucket					7.1
Earlington	69	-9	25.6	0.80	8.0	North Bridgton	40	-24	15.7	1.08	10.5	Natick* ¹	48	-10	20.2	1.34	11.0
Eddyville†				0.36		Orono†	41	-10	17.0	0.83		New Bedford a	44	-8	23.8	1.17	10.5
Edmonton†	68	-10	26.0	0.84	8.4	Petit Menan* ¹	40	-5	25.5			New Bedford b	44	-6	23.6	0.83	8.0
Elizabethtown†	65	-10	27.6	0.30		Portland					9.2	North Billerica	52	-5	23.8	1.00	13.0
Eubank†	71	-13	24.4	0.74	12.8	West Jonesport* ¹	39	-14	20.9			Pittsfield	38	-16	15.3	1.40	
Falmouth†				0.58	5.0	Maryland.						Plymouth* ¹	46	-4	25.0	0.87	7.0
Fords Ferry†	68	-10	26.7	0.30	3.0	Annapolis	63	-1	26.6			Provincetown	42	-3	25.4	1.07	6.0
Franklin* ¹	72	-11	29.1	0.55	5.5	Bachmans Valley* ¹	40	-3	21.9	0.70	7.0	Roberts Dam				1.33	9.2
Georgetown	68	-16	23.0			Baltimore	60	-10	22.6	1.30	13.0	Roxbury	45	-6	24.2	1.27	12.5
Greendale* ¹	64	-12	22.4	0.69	7.0	Boetherville* ¹	60	-10	22.6	1.30	13.0	Salem				1.23	9.0
Greensburg* ¹	69	-12	25.0	0.81	8.2	Burkittsville	72	-3	26.0	0.94	8.3	Salisbury				1.10	11.0
Henderson†	73	-8	29.0	0.08	0.8	Charlotte Hall†	65	-5	25.8	1.38	12.5	Somerset* ¹	52	-8	23.8	1.16	11.0
Hendricks†	80	-15	27.0	1.50	15.0	Cherryfields† ²			25.9	1.78	10.0	Springfield Armory	47	-10	23.6	1.29	14.8
Herbert	68	-16	24.8	0.41	4.0	Chestertown†	58	0	23.8	1.35	13.5	Taunton b	48	-6	23.6	1.39	6.0
Lexington					5.7	College Park	63	-7	24.9	0.70	7.5	Taunton c	48	-7	23.0	1.21	
Louisville	61	-6	24.4	1.09		Cumberland a†	54	-3	22.4	0.98	9.5	Taunton d	48	-9	22.0	1.30	6.0
Marrowbone†	70	-18	27.2	0.42	8.5	Cumberland b†	64	-3	28.2	0.93	8.8	Turners Falls	42	-9	18.6	0.51	
Matlock* ¹	74	-10	24.3	0.72	7.2	Darlington†	58	-6	23.7	1.61	13.5	Vineyard Haven					8.5
Mount Sterling†	68	-13	21.8	1.36	15.0	Deer Park	48	-18	16.7	0.90	6.3	Wakefield†	43	-10	21.6	1.12	13.0
Paducah a†				1.00	7.0	Denton†	60	-2	27.6	1.05	9.1	Waltham				1.29	
Paducah b†	77	-8	29.7	0.28	2.8	Easton†	64	-2	28.9	1.98	17.0	Webster				0.95	10.0
Pleasure Ridge Park†	70	-15	25.0	0.67	6.7	Fallston* ¹	58	-3	24.0	1.48	12.5	Wellesley	44	-10	20.4		
Princeton†	68	-14	25.0			Frederick a	61	-4	25.1	1.23	10.2	Westboro	48	-9	22.0	1.35	14.0
Richmond†	72	-15	24.6			Frederick b	60	-1	26.0	1.30	12.0	Williamstown	43	-15	16.8	1.70	17.0
Russellville†	75	-9	30.4	0.38	3.2	Grantsville	48	-12	19.2	1.45	12.0	Winchendon				0.68	13.0
Sandy Hook†	58	-10	23.8	0.64	8.0	Great Falls* ²	63	-1	25.8	0.37		Winchester	43	-1	25.8	0.43	
Shelby City* ¹	66	-13	24.8	0.80	8.0	Hancock	58	-8	23.8	0.97	9.5	Winthrop	48	-6	24.2	1.37	16.0
Shelbyville†	69	-12	23.5	0.66	6.6	Jewell†	62	-2	25.8	1.17	11.5	Woods Holl					9.2
South Fork†			22.1	1.50	15.0	Johns Hopkins Hospital	63	-1	25.5			Worcester a	44	-10	19.4	0.48	
Springfield†	68	-11	24.4	0.95	9.5	La Plata†	60	-2	27.2		14.5	Worcester b	44	-10	20.9	1.14	8.0
Winchester†	65	-12	24.0	0.85	8.5	Mardela Springs†	61	-2	25.7	2.02	10.0	Worcester c* ¹	45	-12	19.2		
Louisiana.						Oakland†	47	-12	16.6	1.61	12.0	Michigan.					
Abbeville	75	12	44.2	5.15	12.0	Pocomoke City	64	-2	29.3	1.62	13.5	Adrian	58	-20	17.0	0.48	2.2
Alexandria†	73	9	43.4	2.41	8.0	Princess Anne	61	3	25.3	2.14	13.0	Albion	53	-9	19.2	2.50	2.5
Amite†	76	10	44.5	5.23	12.5	Shalopsisburg	50	-6	22.8	1.45	14.0	Allegan	54	-13	17.5	0.84	6.0
Bastrop†	75	4	37.2	1.06	T.	Solomons†	65	3	27.4	1.34	11.8	Alma	41	-15	14.2	0.67	7.0
Baton Rouge†	77	11	42.9	5.79	12.5	Sunnyside	49	-15	15.0	1.16	11.3	Alpena					6.3
Calhoun†	74	3	37.4	1.26		Upper Marlboro†	65	-7	24.5	1.10	11.0	Ann Arbor	51	-10	16.1	0.28	2.2
Cameron†	74	13	41.7	4.50	15.0	Western Port	56	-5	21.6	0.75	7.5	Arbela* ²				0.30	2.0
Cheneyville†					8.0	Westminster	57	-4	25.2	1.30	13.0	Ball Mountain	48	-18	14.6	0.50	3.1
Clinton†	76	10	43.3	4.01	9.0	Woodstock	60	-7	24.2	1.04	10.4	Bear Lake*	46	-13	14.4		
Coushatta a†				1.39	1.0	Massachusetts.						Benzonia	42	-13	14.5	1.60	18.3
Coushatta b†	76	5	40.2	1.30	1.0	Adams	50	-2	21.2		34.0	Berlin* ¹	50	-22	14.4	0.44	4.4
Covington†	74	10	40.6	5.41	8.4	Amherst	44	-10	19.3	0.66	8.0	Berrien Springs* ¹	56	-6	30.2	1.00	17.5
Davis	75	4	37.2	1.44	3.5	Amherst Ex. Station a	43	-11	16.8	0.56	15.0	Birmingham	51	-18	16.3		
Delhi†				1.70	6.5	Amherst Ex. Station b	45	-10	19.5	1.05	14.5	Boon	42	-26	13.8	1.44	13.8
Donaldsonville†	76	13	44.8	3.67	9.3	Andover	44	-16	21.1	0.95	9.5	Bronson	50	-12	15.0	0.95	5.0
Emile†	72	11	45.0	4.85	10.0	Ashland				1.34		Calumet	50	-20	12.0	0.86	9.0
Farmerville	73	6	38.0			Bedford	45	-9	21.4	0.97	9.8	Charlevoix	50	-24	15.5	1.99	19.9
Franklin†	76	13	44.3	6.90	10.0	Beverly Farms	44	-9	21.2	2.18	16.0	Cheboygan	48	-28	11.0	0.92	11.0
Grand Coteau	74	12	44.6	4.15	15.0	Blue Hill (summit)	44	-10	21.1	1.12	8.0	Clinton	58	-16	17.3	0.33	2.9
Hammond†	77	10	44.2	5.69	10.0	Blue Hill (valley)	45	-8	20.3	0.83		Detroit					1.5
Houma†	74			5.65	16.0	Boston (V. O.)				0.54		Escanaba†	49	-18	14.0	2.00	
Jeanerette†	78	4	45.2	5.98	12.5	Boston (W. B.)					8.8	Fairview	44	-11	14.0	0.77	5.0
Lafayette†	78	12	43.6	4.34	14.0	Brookton a	48	-7	23.6	0.70	6.5	Fitchburg	49	-20	15.1	0.70	6.0
Lake Charles†	74	12	45.7	5.26	22.0	Brookton b				1.05		Flint	46	-20	14.4	0.11	0.5
Lake Providence†	78	5	40.7	2.36	3.0	Brookton c				0.84		Frankfort* ¹⁰	43	-7	21.4		
Lawrence†	71	17	44.6	4.51	6.0	Cambridge a	50	-8	22.5	1.23		Gladwin	49	-28	12.1	0.15	1.5
Liberty Hill	78	4	39.1	1.09	3.5	Cambridge b	44	-5	21.8	1.07		Grand Haven					9.0
Maurepas	78	10	43.0	5.95	12.0	Chestnut Hill	44	-8	22.4	0.88	9.5	Grand Point au Sable* ¹⁰	40	-9			

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Michigan—Cont'd.						Mississippi—Cont'd.						Missouri—Cont'd.					
Mottville.....	60	-14	16.0	0.48	3.8	Canton.....	72	5	37.8	1.75	1.2	Louisiana Bridge.....	66	-23	18.6	0.60	6.0
N. Manitou Island *10.....	43	2	18.2	0.02	5.5	Clarksdale.....	75	1	36.4	0.62	1.0	McCune *1.....	66	-23	18.6	1.50	10.2
North Marshall.....	50	-17	14.4	0.02	5.5	Columbus.....	72	2	37.0	0.60	1.0	Marble Hill.....	66	-23	18.6	0.15	1.5
Northport.....	47	-19	17.7	1.90	19.0	Corinth.....	69	-1	30.9	0.00	0.0	Marcelline.....	70	-17	22.6	0.51	4.3
Old Mission.....	47	-16	17.4	1.29	12.5	Crystal Springs.....	74	3	38.6	2.31	3.0	Marshall.....	61	-20	18.2	0.88	2.2
Ovid.....	45	-15	15.3	0.30	3.0	Duck Hill.....	72	0	35.0	0.70	3.5	Maryville *4.....	61	-20	18.2	0.88	2.2
Parkville.....	44	-16	16.5	1.18	6.0	Edwards.....	74	4	38.0	1.72	4.8	Mexico *1.....	69	-30	21.3	0.61	2.7
Point aux Barques *10.....	44	-16	16.5	1.18	6.0	Egypt.....	72	3	35.1	0.00	0.0	Miami.....	62	-8	26.0	0.50	6.0
Point Betsy *5.....	40	-10	16.0	1.18	6.0	Enterprise.....	76	8	39.0	3.17	5.0	Mine La Motte.....	75	-12	26.0	0.22	3.0
Pontiac.....	51	-18	16.9	1.18	6.0	Fayette.....	76	7	40.9	3.82	6.8	Mount Vernon.....	68	-21	22.8	0.47	4.5
Port Huron.....	44	-16	16.5	1.18	6.0	French Camps.....	74	2	36.6	1.80	1.7	Neosho.....	69	-18	25.8	0.35	2.0
Romeo.....	46	-16	16.5	1.18	6.0	Fulton.....	74	0	35.6	2.38	6.1	Nevada.....	70	-21	15.7	0.80	7.9
St. Ignace.....	41	-35	10.9	1.50	13.0	Greenville.....	71	4	38.2	1.25	2.0	New Hartford *3.....	70	-9	35.2	1.25	5.0
St. Johns.....	46	-12	17.4	0.42	2.0	Greenville *1.....	74	2	39.6	3.45	8.6	New Haven *1.....	75	-5	32.6	0.28	2.3
Sand Beach.....	47	-17	15.9	1.18	6.0	Hattiesburg.....	74	2	39.6	3.45	8.6	New Madrid.....	70	-9	35.2	1.25	5.0
Sault Ste. Marie.....	42	-25	14.4	0.57	5.0	Hernando.....	71	0	33.6	0.50	1.0	New Palestine.....	69	-14	34.8	0.27	3.5
Stanton.....	48	-15	16.6	0.39	3.0	Holly Springs.....	71	-4	33.0	0.87	1.0	Oakfield.....	69	-14	34.8	0.27	3.5
Thornville.....	49	-16	16.4	1.18	6.0	Jackson.....	74	6	39.0	1.84	2.0	Oak Ridge *4.....	74	-11	36.0	0.79	1.1
Thunder Bay Island *10.....	41	-8	19.0	2.15	18.5	Kosciusko.....	75	4	37.9	2.75	3.0	Olden.....	74	-13	39.3	0.35	1.0
Vandalia.....	61	-8	19.0	2.15	18.5	Leaf *1.....	74	12	41.5	0.00	0.0	Oregon.....	69	-18	23.8	0.96	4.2
Ypsilanti.....	53	-16	15.5	0.54	4.3	Leaksville.....	77	11	44.6	0.00	0.0	Oregon *1.....	68	-19	22.2	0.91	3.1
Minnesota.						Logtown.....	73	16	46.0	5.24	6.0	Oscola.....	75	-19	22.2	0.91	3.1
Ada.....	53	-42	3.2	0.10	3.0	Louisville.....	75	-1	35.4	2.49	5.3	Oto.....	75	-19	22.2	0.91	3.1
Alexandria.....	40	-31	8.4	0.98	9.0	Macon.....	72	1	37.0	1.67	2.6	Palmyra.....	72	-13	30.3	0.25	1.5
Beardsley.....	40	-31	8.4	0.98	9.0	Meridian.....	72	12	44.0	3.60	21.0	Panacea.....	72	-13	30.3	0.25	1.5
Belle Plaine *1.....	49	-34	10.8	0.05	0.5	Mess Point.....	71	12	44.0	3.60	21.0	Pickering *2.....	70	-34	17.8	1.43	5.1
Bingham Lake.....	55	-31	11.3	0.05	0.5	Natchez.....	78	7	41.8	1.45	2.0	Platte River *2.....	70	-16	20.6	0.71	4.5
Bird Island.....	53	-31	8.6	0.23	2.3	Okolona.....	71	4	35.6	0.69	0.9	Poplar Bluff.....	77	-8	29.8	1.60	2.5
Blooming Prairie *1.....	50	-28	10.2	0.35	3.5	Palo Alto.....	73	2	37.6	4.07	5.2	Potosi.....	75	-16	23.1	1.25	12.0
Bonniwells Mill.....	51	-29	9.2	0.28	2.8	Pontotoc.....	76	-1	36.8	1.61	5.0	Princeton *1.....	68	-18	21.1	1.25	12.0
Caledonia.....	54	-30	10.0	0.52	6.0	Port Gibson.....	74	6	38.9	2.39	3.0	St. Charles.....	66	-14	23.8	1.12	5.2
Cambridge.....	51	-32	9.6	0.45	4.5	Rosedale.....	81	2	37.8	1.16	1.6	St. Joseph.....	66	-14	23.8	1.12	5.2
Camden.....	62	-27	12.8	0.30	2.0	Stonington *1.....	76	8	41.6	0.00	0.0	St. Louis (W. B.).....	68	-19	23.8	0.40	4.0
Campbell.....	50	-36	4.9	0.52	5.2	Thornton.....	76	8	41.6	0.00	0.0	Sarcoxie *3.....	68	-19	23.8	0.40	4.0
Clear Lake.....	52	-34	5.6	0.36	3.6	Topton.....	72	10	40.6	1.72	3.7	Shelbina.....	75	-10	27.3	1.80	2.8
Clear Water *1.....	47	-27	9.8	0.34	3.4	University.....	74	-3	34.7	0.67	4.2	Sikeston.....	75	-10	27.3	1.80	2.8
Collegeville.....	58	-27	12.6	0.09	0.8	Vaughan.....	81	4	37.6	1.08	0.6	Springfield.....	72	-26	25.3	0.67	6.7
Crookston.....	49	-38	4.4	0.35	3.5	Vicksburg.....	76	-3	36.4	1.35	3.3	Steffenville.....	72	-26	25.3	0.67	6.7
Dawson *1.....	63	-32	9.1	0.64	6.4	Water Valley *1.....	76	-3	36.4	1.35	3.3	Stellada.....	67	-30	17.8	0.06	0.6
Duluth.....	49	-38	4.4	0.35	3.5	Waynesboro *1.....	76	10	37.7	1.45	3.0	Sublett.....	75	-19	21.4	0.59	5.0
Farmington.....	48	-36	8.2	0.92	8.0	Woodville.....	79	7	43.0	2.86	5.5	Tindall.....	75	-19	21.4	0.59	5.0
Fergus Falls.....	55	-34	8.6	0.39	3.9	Yazoo City.....	76	5	39.0	1.82	2.0	Vera Cruz.....	67	-14	23.0	0.27	2.7
Fort Ripley.....	51	-32	8.0	0.21	2.1	Missouri.						Vermont *1.....	67	-14	23.0	0.27	2.7
Grand Meadow.....	51	-32	8.0	0.21	2.1	Akron.....	69	-15	25.8	0.65	4.0	Vilas.....	66	-9	26.0	0.32	2.5
Granite Falls.....	58	-31	6.2	0.17	2.5	Appleton City.....	69	-15	25.8	0.65	4.0	Virgil City.....	66	-9	26.0	0.32	2.5
Hutchinson.....	50	-31	9.2	0.55	5.5	Arthur *3.....	68	-22	21.0	0.50	4.0	Warrensburg *1.....	66	-9	26.0	0.32	2.5
Jadwin.....	44	-37	2.2	0.17	1.0	Baginell.....	68	-22	21.0	0.50	4.0	Warrenton.....	69	-15	24.2	0.37	2.8
Lake Winnibigoshish *1.....	55	-40	6.6	0.41	4.1	Bethany.....	77	-12	37.4	0.43	1.0	Wheatland.....	67	-16	24.9	0.55	1.0
Lawrence.....	54	-32	11.8	0.14	1.5	Birch Tree.....	77	-12	37.4	0.43	1.0	Willow Springs *1.....	67	-16	24.9	0.55	1.0
Leech Lake.....	54	-34	8.4	0.57	5.1	Bluffton *1.....	70	-16	27.3	0.00	0.0	Montana.					
Little Falls.....	52	-35	6.7	0.12	1.2	Boonville.....	63	-30	21.9	0.20	1.1	Billings.....	59	-26	17.3	0.35	3.5
Long Prairie.....	60	-28	11.7	0.25	2.5	Brunswick.....	63	-30	21.9	0.20	1.1	Boulder.....	61	-24	22.5	0.17	1.7
Luverne.....	51	-34	9.6	0.66	6.1	Carrollton.....	63	-30	21.9	0.20	1.1	Bozeman.....	57	-22	19.2	0.27	2.7
Maple Plain.....	55	-42	6.8	0.98	9.0	Carthage.....	63	-30	21.9	0.20	1.1	Butte.....	58	-19	22.2	0.14	1.2
Marfield.....	50	-30	9.5	0.70	7.0	Centerville.....	66	-15	23.4	0.35	1.5	Choteau.....	66	-25	19.6	1.85	18.5
Mazeppa.....	64	-36	7.1	0.67	6.8	Columbia.....	66	-18	23.3	0.44	0.2	Cokedale.....	63	-20	23.9	2.25	18.0
Milan.....	49	-30	9.8	0.46	4.6	Conception.....	66	-18	23.3	0.44	0.2	Columbia Falls.....	52	-19	25.0	0.52	3.0
Minneapolis.....	51	-30	9.9	0.40	4.0	Cowling *3.....	65	-18	23.3	0.44	0.2	Deer Lodge City.....	59	-28	21.6	0.59	3.5
Minneapolis (W. B.).....	51	-30	9.9	0.40	4.0	Darkeville.....	65	-18	23.3	0.44	0.2	Dillon.....	55	-18	23.2	0.10	1.0
Minnesota City.....	55	-30	12.8	0.45	4.5	Dixon.....	66	-15	23.4	0.35	1.5	Fort Benton.....	62	-45	22.2	0.00	0.0
Montevideo.....	54	-31	8.6	0.67	6.7	Downing.....	66	-15	23.4	0.35	1.5	Fort Custer.....	54	-37	9.9	1.09	9.5
Moorhead.....	58	-35	6.4	0.08	0.8	East Lynne *3.....	66	-15	23.4	0.35	1.5	Fort Keogh.....	62	-37	10.0	1.40	14.0
Morris.....	54	-32	8.2	0.10	2.5	Edgehill *3.....	72	-12	36.6	0.36	4.9	Fort Logan.....	58	-28	19.0	0.21	7.0
New London.....	56	-30	11.1	0.00	0.0	Eight Mile *1.....	62	-18	24.0	0.91	5.0	Fort Missoula.....	60	-30	24.0	0.22	1.8
New Richland *10.....	58	-34	13.3	0.49	4.0	Eldon *1.....	66	-12	25.2	0.35	3.5	Glasgow.....	54	-25	8.0	0.97	5.0
New Ulm.....	49	-44	5.0	0.21	2.1	Elmira.....	68	-21	21.8	0.61	3.5	Glendive.....	53	-38	10.7	0.90	9.0
Park Rapids.....	52	-41	7.6	0.59	6.4	Emma *3.....	68	-21	21.8								

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Nebraska—Cont'd.						Nebraska—Cont'd.						New Jersey—Cont'd.					
Blue Hill ¹	62	-25	23.3	1.15	Ins.	Turlington ¹	71	-22	21.2	1.14	2.2	Bridgeton	55	1	26.8	2.07	10.0
Bratton ¹	66	-30	21.9	1.27	1.3	Wakefield	55	-23	18.4	0.32	1.2	Camden	52	-1	24.2	1.33	11.3
Broken Bow ¹	50	-32	20.7	...	...	Wallace ¹	55	-23	18.4	0.70	...	Cape May	47	-2	27.6	1.68	8.5
Burchard ¹	60	-30	23.5	1.05	0.5	Weeping Water ¹	69	-25	18.7	0.67	1.3	Cape May C. H. ¹	55	-2	26.1	1.45	11.1
Burwell ¹	50	-34	19.0	1.26	6.2	Weston	...	...	...	1.00	...	Charlotteburg	47	-5	21.1	0.79	7.0
Callaway ¹	72	-32	20.7	1.65	4.0	West Point ¹	...	...	...	0.43	1.3	Chester	45	-10	19.2	1.15	12.0
Central City ¹	66	-30	22.4	0.75	...	Whitman	...	...	...	0.47	0.2	Colesville	44	-10	30.2	1.43	14.3
Chadron ¹	80	-44	16.6	...	...	Wilber ¹	72	-18	24.4	1.32	T.	Deckertown	48	-10	30.2	1.24	12.0
Chester ¹	70	-22	21.7	1.56	T.	Wilcox	...	...	...	1.34	0.5	Dover	49	-6	21.6	0.77	8.9
Columbus ¹	68	-21	21.7	0.85	1.5	Wilsonville	...	...	...	0.73	1.0	Egg Harbor City	55	-2	23.2	1.12	8.5
Cornelia	...	...	...	0.74	1.0	York ¹	70	-18	34.1	0.90	T.	Elizabeth ¹	50	-7	23.6	1.04	8.5
Cortland ¹	67	-20	21.3	1.00	T.	Nevada.						Franklin Furnace	45	-8	19.0	1.72	19.8
Creighton ¹	64	-26	17.7	0.30	2.0	Austin	48	5	29.9	1.29	12.5	Freehold	52	-2	23.9	1.30	12.0
Crete	68	-20	22.0	1.10	0.6	Battle Mountain ¹	50	2	28.1	1.65	11.5	Friesburg	...	...	...	1.29	10.5
Culbertson	...	...	...	0.95	3.0	Belmont	45	3	27.2	1.86	21.0	Gillette	50	-10	21.7	1.71	12.5
Curtis ¹	70	-34	24.1	1.45	1.0	Beowawe ¹	48	0	24.5	0.80	8.0	Hammononton	...	...	...	1.28	...
Curtis ¹	70	-34	27.3	1.00	1.0	Candelaria ¹	69	18	40.2	0.44	6.0	Hanover	47	-6	22.6	0.82	10.0
David City ¹	66	-22	20.0	0.85	1.0	Carlin ¹	45	-19	18.9	1.10	11.0	Hightstown	52	-5	23.0	1.20	12.0
Dunning ¹	52	-25	19.8	0.84	2.8	Carson City	64	6	35.1	1.96	7.6	Imlaystown	48	-5	23.8	0.73	7.2
Edgar ¹	65	-26	19.0	1.07	T.	Carson City (W. B.)	...	...	...	...	6.7	Junction	...	...	...	1.50	14.0
Ericson ¹	56	-34	16.8	0.52	T.	Clover Valley ¹	...	...	...	1.40	14.0	Lambertville	50	-8	22.4	1.60	15.0
Ewing ¹	...	...	...	0.32	T.	Cortez ¹	...	...	...	1.40	14.0	Millville	57	-3	26.2	1.33	8.3
Fairmont ¹	69	-22	19.3	1.02	...	Cranes Ranch	...	...	...	0.73	7.3	Moorestown	54	-5	23.8	0.94	12.0
Fontanelle	66	-22	20.1	0.55	1.1	Downeyville	71	30	42.5	1.40	8.0	Newark ¹	48	-4	24.8	0.84	8.0
Fort Robinson	69	-26	22.1	0.10	0.5	Edgewood	58	8	32.6	1.70	17.0	Newark ¹	48	-3	24.5	0.88	9.8
Franklin ¹	64	-30	22.1	1.21	1.0	Elko ¹	45	-15	22.2	0.95	9.5	New Brunswick ¹	52	-8	24.1	0.97	10.9
Geneva ¹	70	-20	22.2	1.55	0.5	Elko (near)	60	-20	34.6	0.60	6.0	New Brunswick ¹	48	-6	23.7	0.65	10.5
Genoa ¹	65	-22	19.5	1.04	2.2	Ely	55	-15	26.6	2.40	34.0	Newton	46	-9	19.8	1.44	14.0
Gering ¹	66	-25	19.6	0.21	1.0	Empire Ranch ¹	46	-19	23.5	1.04	10.0	Ocean City	55	-2	25.1	2.30	5.0
Gibbon	64	-21	22.2	1.40	T.	Fenelon ¹	54	-10	24.1	1.15	11.5	Oceanic	49	-5	27.0	1.23	12.2
Glenwood ¹	...	...	...	1.02	T.	Genoa	60	10	36.2	0.45	0.5	Papakating	48	-10	21.5	...	...
Gothenburg	67	-21	24.4	1.05	1.0	Goldconda ¹	62	-4	29.3	...	...	Paterson	52	-2	26.9	1.94	12.0
Grand Island ¹	76	-23	24.2	1.30	0.7	Gold Hill	65	15	39.4	0.74	7.0	Perth Amboy	48	-4	24.0	...	...
Greeley ¹	68	-27	30.3	0.17	T.	Halleck ¹	54	-18	19.7	0.90	9.0	Plainfield	50	-5	25.2	0.98	12.1
Hartington ¹	68	-26	17.9	0.54	3.8	Hamilton	60	0	26.4	0.93	...	Pochunk Mountain	45	-10	19.2	1.45	16.6
Harvard ¹	68	-22	20.4	1.45	3.5	Hawthorne ¹	54	22	34.8	0.34	1.5	Rancocas ¹	52	-6	...	0.89	10.5
Hastings ¹	68	-26	18.7	1.38	1.1	Hawthorne ¹	54	16	36.8	0.30	1.5	Readington ¹	50	-4	27.4	...	...
Hayes Center	...	...	...	1.15	4.4	Hot Springs ¹	54	10	30.4	0.80	7.5	River Vale	46	-12	21.2	1.30	13.0
Hay Springs ¹	66	-32	15.9	0.30	2.0	Humboldt ¹	64	11	32.3	0.75	7.5	Salem	55	-3	24.0	2.09	10.0
Hebron ¹	77	-30	22.5	1.34	2.0	Lewers Ranch	01	14	36.8	3.98	11.2	Somerville	53	-12	24.2	1.03	11.0
Hickman ¹	72	-30	23.6	0.79	0.2	Lovelock ¹	75	15	37.7	0.94	7.5	South Orange	47	-5	22.8	1.30	14.0
Holdrege ¹	...	...	...	0.85	T.	Marlette Lake ¹	...	...	...	4.75	42.0	Toms River	57	-4	25.8	1.43	15.0
Imperial ¹	68	-22	19.1	0.95	2.0	Mill City ¹	56	8	30.9	...	4.5	Trenton	54	-4	25.4	1.76	15.0
Imperial ¹	70	-22	21.5	0.90	2.0	Oscoda ¹	44	-4	21.3	1.40	14.0	Vineland	54	-4	24.0	1.93	16.3
Indianola ¹	70	-30	24.2	1.22	3.0	Palmito	59	5	33.3	1.30	12.0	Whiting	56	0	27.4	0.55	5.5
Kearney ¹	64	-30	22.4	1.11	T.	Paradise Valley	57	-4	29.6	1.22	10.0	Woodbine	57	-4	23.8	2.31	8.0
Kennedy ¹	64	-18	30.4	0.70	0.5	Reno ¹	56	14	35.8	0.35	...	New Mexico.					
Kimball ¹	65	-23	30.5	0.37	2.0	Ruby Valley ¹	...	...	...	1.47	34.0	Albert ¹	70	-6	31.7	0.93	4.5
Lexington ¹	65	-17	30.5	1.40	3.0	St. Clair	53	8	31.2	0.94	8.8	Albuquerque ¹	63	-10	32.1	0.60	6.0
Lincoln	69	-18	22.4	0.71	1.1	Sunnyvale	55	-35	30.5	1.38	13.5	Alma ¹	74	-8	40.5	0.33	...
Lodge Pole ¹	69	-29	30.9	0.85	7.0	Tecoma ¹	52	-10	29.2	0.85	8.5	Aztec ¹	68	-18	29.4	0.35	6.0
Loup ¹	67	-34	19.4	1.05	0.5	Toano ¹	45	-16	22.8	1.40	14.0	Bloomfield ¹	57	-22	24.7	0.55	5.5
Loup ¹	66	-34	17.8	0.92	T.	Tybo	51	6	31.2	0.41	13.0	Chama ¹	58	-26	24.1	2.70	27.0
Lynch ¹	65	-23	18.4	0.22	0.6	Verdi ¹	65	11	35.3	2.30	4.5	Deming ¹	83	10	45.6	0.15	0.5
McCook ¹	73	-18	25.7	1.30	5.0	Wadsworth ¹	64	16	34.4	2.74	7.5	East Las Vegas ¹	60	-34	28.6	1.85	9.1
Madison	...	...	...	0.53	2.0	Wells ¹	50	-15	30.6	1.30	12.0	Eddy ¹	80	-2	36.6	0.19	2.1
Madrid ¹	68	-22	19.3	1.37	4.0	Winnemucca	...	...	...	6.9	...	Engle ¹	70	-2	38.3	0.50	4.0
Marquette ¹	67	-22	...	0.84	0.5	Yerington	60	20	38.8	0.57	0.2	Estalina Springs ¹	62	-18	31.8	0.90	7.8
Mason City	...	...	...	1.30	1.0	New Hampshire.						Fort Bayard	70	6	38.2	0.80	5.0
Minden ¹	65	-22	19.3	1.64	2.0	Alstead ¹	40	-30	15.9	1.29	9.8	Fort Stanton ¹	66	-26	32.0	1.02	9.0
Nebraska City ¹	66	-30	19.2	0.75	0.5	Belmont	45	-30	12.4	0.57	...	Fort Wingate	65	-15	33.1	0.70	7.0
Nebraska City ¹	68	-16	24.5	0.58	0.6	Berlin	45	-30	12.4	...	...	Fresnal	62	-15	31.1	1.25	19.5
Nemaha City ¹	65	-18	23.2	1.30	2.0	Berlin Mills	47	-20	13.6	0.89	10.0	Gallisteo ¹	59	-12	29.2	0.30	...
Norfolk ¹	65	-23	18.8	0.36	0.5	Bethlehem	44	-22	14.0	0.65	8.0	Gallinas Spring ¹	68	-21	30.0	1.00	0.7
North Loup ¹	67	-23	18.7	0.75	...	Brookline ¹	48	-16	19.1	0.60	7.5	Gila	74	15	43.8	0.64	1.0
North Platte	...	...	...	2.6	...	Concord	45	-15	17.8	0.56	10.0	Las Cruces ¹	75	5	40.7	0.24	...
Oakdale ¹	67	-24	18.1	0.34	0												

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Temperature. (Fahrenheit.)						Precipitation.		Temperature. (Fahrenheit.)						Precipitation.		Temperature. (Fahrenheit.)						Precipitation.	
Stations.			Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Stations.			Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Stations.			Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
New York—Cont'd.								North Carolina—Cont'd.								Ohio—Cont'd.							
Charlotte ¹⁰	40	-4	19.1					Lynn ²	75	0	31.2	1.94	10.8	Celina	66	-14	22.9	0.30					3.0
Cherry Creek				3.29				Marion	74	0	30.8	2.25	22.5	Cincinnati									5.1
Cooperstown†	41	-15	15.2	1.43	14.0			Mocksville†	66	0	33.5	1.66	13.8	Circleville ^a †				0.50					5.0
Cortland	43	-7	16.2	0.97				Moncure†	69	4	31.5	2.56	10.0	Circleville ^b	65	-8	22.0	0.72					4.5
De Kalb Junction.				1.01				Morgantown ²	67	1	32.3	2.20	14.0	Clarksville	64	-14	20.4	0.26					2.1
Demeter				1.48				Mount Airy†	67	-1	28.2	1.28	16.0	Cleveland	62	-6	19.6	0.84					7.6
Deposit				1.75				Mount Pleasant	70	2	31.8	2.25	16.8	Cleveland (W. B.)									3.8
Easton				0.99				Murphy†				2.74	27.5	Clifton	64	-15	18.4	0.45					4.3
Eden	48	-20	13.6	2.95	12.0			Newbern†	78	8	37.2	3.35		Coalton	58	-15	21.5	0.80					8.0
Elmira†	51	-10	20.0					Oak Ridge†	69	-2	29.0	3.28	18.2	Colebrook	52	-23	13.5	1.03					4.2
Fleming	44	-8	18.6					Pantego				1.65	3.0	Columbus									5.9
Fort Niagara†	45	-7	19.2	0.92	10.0			Pittsboro	70	2	30.2	1.85	12.5	Cynthiana	66	-10	22.9	0.80					8.0
Friendship	48	-18	14.0	1.34	13.4			Raleigh ² †	67	3	34.6			Dayton ^b †				0.18					1.9
Fulton				0.56				Raleigh (W. B.)†				9.2		Defiance	63	-12	17.2	0.76					5.0
Glen Falls	45	-22	15.2	1.47	12.5			Rockingham†	72	6	36.8	2.37	9.5	Demos	59	-8	19.2	1.34					11.4
Gloversville	40	-20	16.9	1.19	13.5			Roxboro†	70	-4	30.2	1.60	16.0	Dupont	63	-12	17.1	0.66					6.0
Hamilton	43	-18	15.0	4.13	40.8			Salisbury	63	-7	33.8	2.06	13.5	Ellsworth	37	-13	18.5	0.92					6.5
Hess Road Station†	44	-5	18.9	0.75	14.8			Saxon†	73	-2	31.2	1.65	21.2	Elyria	62	-7	21.0	0.34					1.6
Honeydew Brook	48	-14	17.4	1.55	15.5			Selma	71	3	32.9	3.10	10.0	Fayetteville	63	-14	19.4	0.53					5.3
Humphrey†	50	-15	16.8	1.67	25.5			Shelby†	66	-1	31.1	1.75	15.5	Findlay	64	-9	19.2	0.50					3.0
Hyndsaville	45	-15	17.6					Skyuka	62	-4	30.0	3.65	12.0	Fostoria	59	-11	17.8	0.64					2.1
Ithaca	47	-9	17.7	0.92	10.2			Sloan†	72	9	36.0	3.36	2.0	Frankfort	65	-8	22.4	0.50					5.0
Jamestown ²	44	-16	16.3					Soapstone Mount†	66	-4	28.9	1.81	12.0	Garrettsville	57	-21	16.9	1.08					8.3
Kings Station				1.20				Southern Pines†	73	5	34.8	2.39	5.0	Georgetown	62	-14	22.7	0.35					3.5
Lebanon Springs	49	-18	17.0	1.61	27.5			Southport†	69	10	35.3	3.54		Granville	64	-8	20.0	0.49					5.1
Le Roy	45	-12	17.0	4.55	45.5			Tarboro	73	4	33.1	2.95	6.8	Gratoit	63	-8	20.0	0.81					7.5
Lockport	40	-9	16.2	2.18	20.0			Waynesville†	66	-10	27.1	1.86	18.4	Greenfield	59	-12	21.2	0.40					4.0
Lowville	41	-24	13.3	1.68	21.0			Weldon	70	3	30.7	2.12		Greenhill	58	-13	17.8	0.56					3.8
Lyons	45	-6	21.3	2.17	21.0			Wilmington	70	2	31.7	2.60	12.5	Greenville	62	-13	18.5	0.45					3.0
Madison Barracks†	40	-27	15.5	1.10	12.2									Hackney	63	-4	21.2	1.15					5.0
Malone	40	-24	13.4	2.94	29.4									Hanging Rock	69	-11	22.5	0.80					8.0
Manhattan Beach†	47	-3	22.7	0.80	8.0									Harbor	55	-14	17.0	1.21					7.5
Massena	48	-30	14.8											Hebbardsville	67	-9	24.2	0.64					6.4
Middletown	44	-8	20.2											Hedges	62	-16	17.1	0.80					5.0
Minnewaska	43	-15	17.5	0.80										Hillhouse	56	-24	15.9	2.65					24.0
Mount Morris	49	-13	18.0											Hillsboro	67	-13	21.1	0.50					5.0
Newark Valley				0.78										Hiram	55	-14	16.5	0.88					5.0
New Lisbon	42	-19	14.4	1.98	25.2									Jacksonboro	67	-15	22.3	0.80					5.0
New York				8.2										Kenton†	67	-11	20.6	0.45					3.2
North Hammond ² †	42	-28	14.7	1.18	14.4									Kilbourne	62	-9	18.1	0.45					4.5
Number Four†	37	-29	11.0	2.57	25.7									Killbuck	58	-10	20.0	0.39					1.7
Ogdensburg	38	-26	14.4	1.90	19.0									Lepse				0.40					3.0
Oneonta	46	-9	19.6	1.29	18.0									Levering	61	-20	15.1	0.70					4.0
Oswego				19.8										Logan	67	-8	22.5	0.73					6.3
Oxford	44	-12	16.8	2.00	19.5									Lordsburg	58	-14	17.3	0.40					3.5
Palermo†	40	-12	16.8	2.05	19.5									Lowell	56	-12	18.4	0.58					4.0
Perry City	46	-12	15.6	1.40	13.5									McArthur	58	-12	20.9	0.50					5.0
Phoenix				3.49										McConnellsville	66	-8	20.9	0.91					8.4
Pine City				2.30										Mansfield†				0.67					7.5
Plattsburg Barracks	43	-18	16.5	0.70	7.0									Marietta ^a †				0.87					6.0
Port Jervis	47	-8	18.2	1.43	12.0									Marietta ^b	63	-5	23.8	0.87					6.9
Potsdam	39	-23	13.5	2.40	24.0									Marion	65	-10	19.5	0.52					4.5
Poughkeepsie	46	-13	15.8	0.90	27.0									Medina	60	-14	17.6	0.54					2.0
Rochester				23.6										Millfordton	51	-11	18.0	0.51					6.0
Rome	42	-20	17.6	2.88										Milligan	65	-14	20.9	0.78					6.0
Romulus	47	-8	19.0	0.56	5.5									Millport				0.75					5.5
Saranac Lake	41	-26	10.2	1.22	23.5									Montpelier	60	-16	16.2	0.75					3.5
Saratoga Springs	40	-16	16.8	0.91	8.5									Napoleon	61	-11	17.6	0.13					1.3
Skatauak†	48	-1	24.4											New Alexandria	57	-7	19.6	2.22					15.0
Skaneateles				2.86										New Berlin	58	-10	18.2	0.60					2.3
South Canisteo	49	-15	16.5	0.97	9.7									New Bremen	65	-15	18.7	0.37					3.7
South Kortright†	46	-14	15.9	1.40										New Comerstown	60	-5	19.1	0.89					5.0
Stillwater	43	-18	16.0	1.59	20.0									New Holland	64	-10	20.4	0.70					7.0
Turin	38	-22	12.6	3.21	32.0									New Paris	60	-15	17.5	0.25					2.0
Varysburg	45	-17	15.0	1.16	10.0									New Waterford				0.54					2.9
Wappingers Falls	48	-1																					

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Ohio—Cont'd.						Oregon—Cont'd.						South Carolina—Cont'd.					
Toledo.....	56	-10	19.1	0.56	3.0	Williams.....	67	21	42.6	1.67	Ins.	Blackville.....	75	7	38.4	4.87	2.2
Upper Sandusky.....	56	-10	19.1	0.56	4.0	Pennsylvania.						Blenheim.....	75	0	32.4	4.05	8.5
Vanceburg.....	67	-8	23.9	0.57	5.7	Altoona.....	56	-8	30.1	0.17	.....	Camden.....	75	0	32.4	4.05	8.5
Van Wert.....	65	-12	18.8	0.48	4.5	Aqueduct.....	56	-8	30.1	0.17	7.3	Central.....	75	0	32.4	4.05	8.5
Vermillion.....	60	-11	18.3	1.04	8.2	Beaver Dam.....	56	-8	30.1	0.17	2.7	Charleston.....	75	0	32.4	4.05	8.5
Vickery.....	61	-8	19.1	0.63	5.2	Bethlehem.....	56	-8	30.1	0.17	.....	Cheraw.....	75	4	34.3	2.70	10.5
Walnut.....	58	-16	18.7	1.32	9.9	Blooming Grove *1.....	45	-11	18.7	3.47	26.0	Cheraw.....	75	4	34.3	2.70	10.5
Warren.....	63	-5	17.5	0.20	2.0	Brookville.....	53	-4	22.2	0.89	5.0	Columbia.....	75	0	32.4	4.05	8.5
Wauseon.....	61	-10	18.5	0.76	4.2	Brothers Lock.....	53	-4	22.2	0.89	5.0	Conway.....	75	0	32.4	4.05	8.5
Waynesville.....	67	-8	23.3	0.52	5.2	Carlisle.....	53	-4	22.2	1.39	9.5	Darlington.....	66	10	36.0	.....	.....
Wellington.....	60	-8	20.3	0.82	7.0	Cassandra.....	50	-14	17.5	1.45	10.5	Edisto.....	75	0	32.4	4.05	8.5
Westerville.....	63	-8	20.7	0.09	4.0	Chambersburg.....	56	-5	21.2	1.57	15.5	Edinboro.....	75	0	32.4	4.05	8.5
Wheeler.....	63	-8	20.7	1.70	9.5	Clarion.....	54	-8	22.1	2.18	19.0	Georgetown.....	75	15	38.6	2.00	2.0
Willoughby.....	63	-8	20.7	0.66	5.0	Coatesville.....	54	-8	22.1	2.18	28.2	Greenville.....	75	0	32.4	4.05	8.5
Wooster.....	60	-6	17.9	0.41	3.4	Confidence.....	49	-6	24.0	1.43	11.0	Greenwood.....	75	13	41.6	2.21	9.4
Youngstown.....	51	-10	18.5	1.22	6.6	Coopersburg.....	49	-6	24.0	1.43	16.9	Hardeeville.....	75	13	41.6	2.21	9.4
Zanesville.....	51	-10	18.5	0.71	6.2	Davis Island Dam.....	49	-6	24.0	0.46	.....	Holland.....	74	-6	34.2	2.42	2.0
Oklahoma.						Doylstown.....	49	-6	24.0	0.46	.....	Kingstree.....	75	0	32.4	4.05	8.5
Alvato.....	68	-9	33.1	2.25	T.	Drifton.....	40	-12	20.0	1.29	.....	Little Mountain.....	75	0	32.4	4.05	8.5
Anadarko.....	68	-9	33.1	0.10	1.0	Dubois.....	40	-12	20.0	2.58	25.8	Longshore.....	75	0	32.4	4.05	8.5
Arapaho.....	72	-12	27.1	2.00	0.2	Dyberry.....	45	-14	14.8	0.74	11.5	McCormick *1.....	72	0	32.4	4.05	8.5
Buffalo.....	78	-8	37.8	3.00	T.	East Mauch Chunk.....	49	-9	30.5	2.02	14.5	Mount Carmel.....	70	10	38.9	4.51	1.5
Burnett.....	66	-8	32.6	0.20	0.5	Easton.....	49	-9	30.5	2.02	14.5	Pinopolis.....	70	10	38.9	4.51	1.5
Clifton.....	68	-21	31.6	0.27	T.	Edinboro.....	44	0	17.6	1.85	18.0	Port Royal.....	70	13	42.0	3.08	0.5
Fort Reno.....	67	-7	37.7	0.75	.....	Ellwood Junction.....	49	-26	14.9	0.47	.....	Ridgeway.....	68	7	35.2	2.45	9.0
Fort Sill.....	66	-7	31.4	0.54	0.3	Emporium.....	49	-26	14.9	0.50	6.0	St. George.....	70	10	40.2	3.30	.....
Guthrie.....	66	-9	30.8	0.04	0.5	Erie.....	51	-4	27.2	0.83	10.6	St. Stephens.....	71	-	34.0	2.61	10.0
Keokuk Falls.....	70	-12	37.8	0.30	3.0	Forks of Neshaminy *1.....	51	-4	27.2	0.83	10.6	Santuck.....	71	-	34.0	2.61	10.0
Mangum.....	75	-5	32.4	3.57	4.5	Frederick.....	51	-4	27.2	0.83	10.6	Shaw's Fork *1.....	72	18	42.4	1.30	2.0
Norman.....	67	-7	31.9	0.13	T.	Freeport.....	51	-4	27.2	0.83	10.6	Society Hill.....	72	8	36.4	3.29	7.0
Oklahoma.....	68	-9	30.2	0.40	0.3	Girardville.....	46	-18	16.0	1.54	15.2	Statesburg.....	75	9	37.3	3.88	5.0
Ponca.....	68	-9	30.2	0.40	T.	Gramplan.....	46	-18	16.0	0.96	12.0	Trenton.....	71	5	38.5	3.16	6.3
Pond Creek.....	68	-9	30.2	0.40	.....	Greensboro.....	48	-17	16.0	1.08	9.0	Trials.....	77	10	40.4	4.27	2.5
Sac and Fox Agency.....	69	-12	31.3	0.00	.....	Greenville.....	48	-17	16.0	1.08	6.5	Watts.....	71	0	36.2	1.94	10.5
Winnview.....	68	-9	27.8	1.02	0.5	Hamburg.....	51	-8	22.6	0.71	8.0	Yorkville.....	71	4	35.7	1.36	14.5
Oregon.						Harrisburg.....	53	-14	19.0	1.03	7.0	South Dakota.					
Albany.....	65	28	43.2	1.48	T.	Hollidaysburg.....	53	-14	19.0	1.03	7.0	Aberdeen.....	65	-46	8.0	0.63	3.4
Arlington.....	62	21	41.9	0.21	T.	Honesdale.....	47	-10	18.3	0.98	15.8	Alexandria.....	69	-34	12.5	0.45	1.0
Ashland.....	69	22	43.4	0.48	0.5	Huntingdon.....	53	-10	20.8	0.46	3.8	Ashcroft.....	64	-37	10.2	0.60	4.0
Astoria.....	63	30	45.6	1.39	0.3	Johnstown.....	53	-10	20.8	0.46	3.8	Bowditch *1.....	55	-38	12.0	0.80	8.0
Aurora.....	63	30	45.6	1.39	.....	Kennett Square.....	55	-6	23.6	1.08	21.2	Brookings.....	62	-32	10.0	0.17	1.7
Aurora (near).....	60	27	42.6	1.42	1.0	Lancaster.....	54	-6	23.2	1.74	13.6	Buffalo Gap *1.....	68	-28	19.2	.....	.....
Baker City.....	59	32	47.0	5.82	5.3	Lansdale.....	50	-6	22.1	0.87	11.8	Castlewood.....	62	-37	7.2	0.22	0.8
Bandon.....	59	32	47.0	5.82	.....	Lebanon.....	50	-6	22.1	0.87	11.8	Clark.....	64	-33	7.2	0.20	2.0
Brownsville *1.....	53	-16	21.0	.....	.....	Le Roy.....	45	-18	15.7	0.80	8.0	Cross.....	69	-28	18.9	0.27	4.3
Burns.....	53	-16	21.0	.....	.....	Lewistown.....	48	-16	17.8	1.35	14.0	Farmington.....	69	-28	18.9	0.27	4.3
Canyon City.....	70	9	38.7	0.80	5.5	Lock Haven.....	51	-15	19.4	1.00	10.0	Faulkton.....	64	-39	10.4	.....	.....
Cascade Locks.....	60	28	42.0	3.40	.....	Lock No. 4.....	51	-15	19.4	1.00	10.0	Flandreau.....	64	-34	10.7	0.10	1.0
Corvallis.....	66	27	41.6	1.55	.....	Lycippus.....	46	-10	17.8	0.79	10.8	Forestburg.....	70	-39	14.3	0.01	0.1
Corvallis (near).....	60	27	42.4	1.76	.....	Mahoning.....	46	-10	17.8	0.79	10.8	Gary.....	61	-39	4.4	0.50	5.0
Detroit.....	63	19	36.2	3.25	3.8	Oil City.....	46	-10	17.8	0.79	10.8	Greenwood.....	66	-34	19.7	0.24	0.8
East Portland.....	61	29	43.0	0.36	.....	Ottawa.....	46	-10	17.8	0.79	10.8	Highmore.....	66	-36	11.3	T.	T.
Eugene.....	62	24	43.0	2.11	T.	Parker.....	46	-10	17.8	0.79	10.8	Hotch City.....	60	-32	15.0	0.66	5.5
Forest Grove.....	59	27	42.1	1.36	4.2	Philadelphia.....	53	-2	35.8	1.28	11.6	Howard.....	66	-32	11.9	0.28	T.
Gardiner.....	65	28	48.2	3.87	.....	Philadelphia (W. B.).....	53	-2	35.8	1.28	11.6	Huron.....	56	-39	9.9	0.30	3.0
Glenora.....	62	24	41.0	5.33	1.0	Phoenixville.....	52	-7	22.4	1.58	15.5	Ipswich *1.....	68	-30	15.2	0.41	2.9
Grants Pass.....	74	21	44.8	1.86	.....	Pittsburg.....	52	-7	22.4	1.58	15.5	Kimball.....	57	-29	9.2	.....	.....
Happy Valley.....	67	6	33.8	0.48	3.4	Point Pleasant.....	53	-6	23.2	1.48	13.5	Millbank.....	67	-29	9.2	.....	.....
Heppner.....	64	16	40.0	0.45	1.8	Pottstown.....	53	-6	23.2	1.48	13.5	Northville *1.....	68	-30	9.2	.....	.....
Hood River (near).....	54	19	38.1	1.16	5.5	Quakertown.....	49	-8	20.7	1.47	16.8	Oelrichs.....	67	-38	17.2	1.80	18.0
Hubbard.....	61	24	41.4	1.44	.....	Reading.....	49	-8	20.7	1.47	16.8	Parker.....	63	-39	14.8	0.40	1.0
Jacksonville.....	68	23	42.3	1.10	.....	Ridgeway.....	49	-8	20.7	1.47	16.8	Parkston.....	66	-33	14.4	0.45	3.5
Joseph.....	53	-3	27.4	0.51	5.1	Saegertown.....	49	-25	14.9	2.38	14.0	Pierre.....	68	-31	15.0	0.24	1.5
Junction City *1.....	52	24	37.5	0.40	.....	Salem Corners.....	47	-15	18.5	1.58	15.4	Plankinton.....	68	-31	15.0	0.24	1.5
Lafayette.....	62	28	42.7	1.13	1.0	Salisbury.....	47	-15	18.5	1.58	15.4	Rapid City.....	68	-32	19.4	0.40	4.0
La Grande.....	61	7	36.9	0.50	2.5	Selsholtzville.....	47	-15	18.5	1.58	15.4	Rosebud.....	68	-32	19.4	0.40	4.0
Lakeview.....	45	-7	23.2	1.02	8.0	Shingler.....	53	-11	17.9	1.36	12.0	Shiloh.....	58	-37	12.6	0.00	.....
Langlois.....	67	28	47.6	5.63	.....	Shinglehouse.....	45	-23	9.8	1.00	10.0	Silver City.....	63	-30	13.0	0.22	2.2
Lone Rock.....																	

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Temperature. (Fahrenheit.)						Precipitation.		Temperature. (Fahrenheit.)						Precipitation.		Temperature. (Fahrenheit.)						Precipitation.	
Maximum.		Minimum.		Mean.		Rain and melted snow.	Total depth of snow.	Maximum.		Minimum.		Mean.		Rain and melted snow.	Total depth of snow.	Maximum.		Minimum.		Mean.		Rain and melted snow.	Total depth of snow.
Stations.								Stations.									Stations.						
Tennessee—Cont'd.								Texas—Cont'd.								Virginia—Cont'd.							
Johnsonville†	72	—	30.8	1.22	11.0	San Antonio.....	78	19	45.9	3.93	4.2	Nottoway.....	72	—	3	28.2	2.01	20.0					
Kingston†	72	—	30.8	1.22	11.0	San Antonio (W. B.).....	78	19	45.9	3.93	4.2	Petersburg†	70	—	0	28.4	1.61	18.8					
Knoxville.....	72	—	30.8	1.22	11.0	San Marcos dt.....	78	1	37.9	1.40	4.0	Richmond (near)†	72	—	1	31.4	1.78	16.8					
Loudon†	72	—	30.8	1.22	11.0	Sierra Blanca†	73	8	44.8	0.00		Richmond dt	72	—	1	31.4	1.78	16.8					
Lynnville*1	69	—	8	30.2	16.0	Stafford†	73	8	45.6	4.54	20.0	Rocky Mount†	65	—	2	29.8	1.75	17.5					
Memphis.....	72	—	30.8	1.22	11.0	Sulphur Springs†	82	1	37.2	3.10	11.0	Salem†	61	—	7	31.1	1.85	19.5					
Mount Carmel.....	72	—	30.8	1.22	11.0	Temple†	73	4	40.0	1.45	2.5	Saltville.....	61	—	7	24.7	2.50	25.0					
Nashville.....	72	—	30.8	1.22	11.0	Tyler†	77	1	39.2	0.23	1.7	Smithville†	62	—	0	27.7	2.27	17.6					
Newport*2	70	—	4	36.5	1.89	Victoria†	77	1	39.2	2.85	12.0	Spotsville†	66	—	3	27.9	2.27	17.6					
Nunnally*1	73	—	4	32.0	1.30	Waco†	75	3	41.3	2.01	3.0	Stanardsville†	63	—	9	26.5	0.80	8.9					
Palmetto†	73	—	4	32.0	1.30	Weatherford†	70	—	1	36.4	0.33		Staunton†	58	—	5	24.0	1.43	18.0				
Parksville*1	73	—	1	32.8	2.90	Wichita Falls†	80	—	5	34.2	0.90	T.	Stephens City†	59	—	3	24.1	1.59	13.5				
Riddleton†	73	—	6	30.6	1.18							Sunbeam†	67	—	1	29.9	2.48	10.5					
Rockwood†	73	—	6	30.6	1.18							Warsaw†	68	—	0	26.5	1.15	11.5					
Rogersville*1	62	—	8	28.2	2.06							Whittles Depot†	71	—	2	28.8	1.55	25.5					
Rugby†	68	—	12	26.3	1.73							Wytheville†	58	—	2	24.2	1.75	17.0					
St. Bethlehem.....	75	—	9	28.8	0.60																		
Springdale*1	58	—	20	28.9	1.60																		
Strawberry Plains†	73	—	5	28.8	1.30																		
Trenton.....	72	—	9	29.1	1.50																		
Tulahoma*†1	70	—	2	31.0	0.85																		
Waynesboro*1	70	—	2	31.0	0.85																		
Texas.						Utah.						Washington.											
Ablene.....	65	—	5	39.7	2.75	Alpine City†	45	—	4	28.3	0.30	2.0	Aberdeen†	68	—	31	45.5	5.00	2.0				
Albany*†1	80	—	15	49.0	2.45	Blue Creek*2	50	—	0	27.4	1.00	10.0	Anacortes.....	59	—	22	41.3	7.20					
Allice†	80	—	15	49.0	2.45	Brigham City.....	58	—	12	29.0	0.67	1.0	Asford.....	57	—	3	28.6	0.20					
Amarillo.....	72	—	0	38.0	0.30	Castle Gate†	46	—	2	26.8	0.30	2.0	Blaine†	49	—	11	32.2	7.23	16.0				
Arthur City†	72	—	0	38.0	0.30	Cisco†	53	—	19	23.7	0.53	6.5	Bridgeport†	83	—	5	27.4	0.70	2.0				
Aurora*1	72	—	0	38.0	0.30	Corinne*2	53	—	19	23.7	0.53	6.5	Cascade Tunnel†	57	—	3	28.6	0.20					
Austin†	72	—	11	42.8	0.80	Deseret†	67	—	17	27.2	2.15		Centerville†	49	—	11	32.2	7.23	16.0				
Austin dt	75	—	9	43.9	0.80	Emery.....	41	—	53	7.3	0.03	0.3	Colfax†	83	—	5	27.4	0.70	2.0				
Bellville*1	70	—	12	44.8	0.75	Glendale*†1	61	—	7	29.2	0.51	4.0	Conconully†	59	—	13	37.5	0.98					
Boerne*†1	70	—	4	40.8	4.02	Grouse Creek*†	54	—	12	25.9	0.70	7.0	Connell.....	57	—	8	32.6	0.10					
Brady†	74	—	11	45.8	1.36	Grover†	54	—	12	25.9	0.70	7.0	East Clallam.....	73	—	16	42.0	0.00					
Brazoria†	74	—	11	45.8	1.36	Heber†	54	—	26	17.3	1.93	13.0	East Sound†	60	—	29	43.4	1.86					
Brenham†	74	—	8	44.0	2.26	Huntsville†	39	—	18	19.7	0.00		Ellensburg†	61	—	11	36.4	0.25					
Burnet*†1	75	—	4	42.8	1.82	Kelton*2	57	—	18	22.0	0.87	11.0	Ellensburg (near).....	38	—	14	36.2	0.22					
Camp Eagle Pass†	86	—	12	46.8	1.75	Koosharem.....	57	—	18	22.0	0.87	11.0	Ferry†	61	—	22	41.2	2.21	T.				
Coldwater†	70	—	10	41.4	0.13	Levan†	53	—	36	20.6	3.20	18.0	Fort Simcoe.....	67	—	18	41.2	0.40	1.0				
Coleman.....	74	—	2	34.7	1.93	Loa†	47	—	16	22.3	0.45	3.0	Fort Spokane.....	58	—	2	31.2	0.21	2.0				
College Station.....	74	—	5	42.4	1.69	Logan†	68	—	20	24.5	1.10	11.0	Fort Townsend.....	68	—	31	43.0	1.28					
Colmesneil.....	74	—	12	45.8	3.53	Manti†	64	—	3	32.2	0.89	6.0	Grand Mount†	62	—	18	44.6	1.71	0.4				
Columbia†	74	—	12	45.8	3.53	Millville†	64	—	3	32.2	0.89	6.0	Hunters†	47	—	3	29.2	0.87	4.0				
Corpus Christi.....	77	—	3	42.2	2.26	Moab†	64	—	3	32.2	0.89	6.0	Index†	58	—	34	43.6	8.35					
Coriscana†	77	—	3	42.2	2.26	Moroni†	55	—	6	26.7	1.70	17.0	Kennewick†	66	—	1	41.6	0.18					
Coriscana dt	76	—	1	37.9	1.53	Mount Pleasant*†1	47	—	0	27.0	0.15	T.	Lakeside†	59	—	9	35.5	0.30	T.				
Cuero†	80	—	11	47.8	3.13	Ogden*2	52	—	7	30.2	0.96	7.0	Lapush†	63	—	30	43.8	7.40					
Dallas†	78	—	0	37.4	0.58	Ogden dt*†1	63	—	2	35.3	1.70	12.0	Madrone*†1	63	—	25	44.7	1.96					
Devine.....	79	—	10	44.8	5.05	Pahreah†	63	—	2	35.3	1.70	12.0	Moxee Valley†	62	—	6	34.4	0.29	T.				
Durhal*1	78	—	8	43.6	1.45	Panguitch†	57	—	11	28.6	2.62	31.5	Nash Bay.....	56	—	31	44.6	2.94	T.				
El Paso.....	75	—	3	37.5	0.50	Promontory*2	58	—	4	25.8	0.60	2.0	Oiga†	58	—	21	30.7	0.89	8.0				
Estelle†	74	—	17	50.0	3.45	Provo City*2	74	—	15	40.9	1.21		Olympia†	58	—	12	34.6	1.95	T.				
Flower Bluff†	68	—	4	35.8	0.10	Salt Lake City.....	74	—	15	40.9	1.21		Pullman†	55	—	12	34.6	1.95	T.				
Forestburg†	68	—	4	35.8	0.10	Santaquin.....	74	—	15	40.9	1.21		Rosalia†	54	—	10	33.7	1.31	1.0				
Fort Brown†	80	—	10	45.8	2.65	Snowville†	43	—	15	19.8	0.42	3.0	Seattle.....	54	—	10	33.7	1.31	1.0				
Fort Clark.....	80	—	10	45.8	2.65	Soldier Summit†	47	—	20	19.8	1.08	10.8	Silver Creek†	61	—	20	42.9	3.22	0.4				
Fort Hancock.....	80	—	8	40.9	0.00	Terrace*2	48	—	9	29.1	0.43	4.3	Spokane.....	63	—	36	43.6	3.01					
Fort McIntosh.....	84	—	18	50.4	0.94	Thistle†	65	—	3	26.6	1.30	13.0	Stallpeds†	56	—	17	35.3	2.33	2.8				
Fort Ringgold†	85	—	20	50.8	1.43	Vernal†	54	—	19	21.4	0.54	5.3	Stillaguamish†	60	—	30	41.0	3.51	13.5				
Fort Stockton†	85	—	20	50.8	1.43								Sunnyside†	64	—	10	37.0	0.13	T.				
Fredericksburg*†1	80	—	6	40.3	3.62	Vermon.	42	—	14	17.7	0.66	8.8	Tacomat.....	62	—	27	44.2	2.21					
Galveston.....	71	—	5	34.8	0.96	Battleboro.....	44	—	14	18.7	1.16	15.0	Tatoosh Island.....	62	—	35	47.0	4.09	0.9				
Golindo.....	73	—	5	34.8	0.96	Burlington†	44	—	14	18.7	1.16	15.0	Tatooch Island.....	62	—	35	47.0	4.09	0.9				
Graham†	73	—	5	34.8	0.96	Cornwall.....	30	—	24	15.5	1.40	14.0	Vashon†	61	—	—	—	—					
Grape Vine†	74	—	0	37.1	0.29	Enosburg Falls†	44	—	21	14.1	2.15	21.5	Waterville†	49	—	2	29.6	0.50	3.0				
Hale Center†	85	—	6	37.5	0.50	Farland†	42	—	24	13.3	1.26	15.0	Wenatchee Lake†	51	—	11	35.8	1.10	5.0				
Hallettville†	77	—	11	44.7	3.09	Irassburg†	46	—	20	16.8	1.75	17.5	West Ferndale†	57	—	23	41.4	3.79					
Happy.....	77	—	13	28.2	1.90	Jacksonville.....	42	—	24	13.4	1.41	12.0											
Hartley†	68	—	17	30.0	1.08	Northfield.....	45	—	20	14.0	0.76	8.0	West Virginia.	58	—	12	25.5	2.23	22.0				
Haskell†	68	—	17	30.0	1.08	Norwich*2	41	—	17	14.1	0.71	7.8	Beverly†	58	—	12	25.5	2.23	22.0				
Hewitt.....	73	—	1	35.2	2.0	St. Johnsbury.....	43	—	19	13.0	0.62	4.0	Bloomery†	52	—	12	30.4	1.10	14.0				
Houston†	74	—	10	42.2	4.08	Simonsville.....	38	—	16	14.8	1.51	18.0	Bluedfield†	55	—	12	30.3	1.44	18.0				
Huntsville†	86	—	6	42.1	4.75	Stratford*†1	39	—	20	15.7	0.76	9.0	Buckhannon dt	58	—	13	23.1	0.91	7.8				
Kent.....	70	—	0	30.3	2.03	Vernon*2	42	—	2														

TABLE II.—Meteorological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>West Virginia—Cont'd.</i>	°	°	°	<i>Ins.</i>	<i>Ins.</i>	<i>Wisconsin—Cont'd.</i>	°	°	°	<i>Ins.</i>	<i>Ins.</i>
Phillippi†	56	-10	19.2	0.40	12.0	Pine River†	55	-31	13.0	0.47	3.8
Pleasant Hill*†	56	-10	19.2	0.40	12.0	Portage†	58	-22	16.4	0.40	4.0
Point Pleasant†	69	-5	25.4	0.94	9.0	Port Washington	60	-30	11.9	0.60	6.0
Powellton†	60	-5	23.8	1.19	22.2	Prairie du Chien	60	-30	11.9	0.50	4.4
Raleigh†	48	-14	17.0	0.99	5.6	Racine*†	49	-14	13.3	0.30	T.
Rowlesburg†	62	-17	21.2	0.61	7.0	Rhineland†	54	-40	10.7	0.53	3.0
Sandyville†	54	-9	19.2	2.29	20.0	Royalton	56	-29	10.6	1.27	10.0
Tannery*†	56	-8	23.2	0.64	6.0	Sharon†	57	-23	15.2	0.55	3.5
Weston†	56	-8	23.2	0.64	6.0	Shawano	57	-23	15.2	0.55	3.5
Weston‡	56	-8	23.2	0.64	6.0	Sheboygan*†	57	-23	15.2	0.55	3.5
Wheeling†	62	0	24.8	1.18	8.4	Spooner†	54	-40	10.7	0.30	3.0
Wheeling‡	62	0	24.8	1.18	8.4	Stevens Point†	54	-33	10.4	0.35	3.0
Wiggins	52	-7	25.4	11.5	11.5	Sturgeon Bay Canal*†	50	-27	12.8	0.56	5.3
<i>Wisconsin.</i>						Valley Junction†	57	-32	10.6	0.56	5.3
Amherst	56	-35	10.6	0.40	4.0	Viroqua	54	-26	13.4	0.95	6.0
Antigo†	56	-37	11.7	0.44	4.3	Watertown†	60	-24	13.6	0.75	2.5
Apollonia*†	56	-38	12.2	0.10	1.0	Waukesha†	53	-24	13.2	0.42	4.0
Barron†	44	-45	7.8	0.60	5.5	West Bend	53	-14	13.2	0.57	5.6
Beaver Dam	58	-25	12.6	0.60	5.5	Westfield†	53	-30	11.6	1.30	9.0
Belleville	58	-29	9.7	0.82	6.5	Whitehall†	54	-30	8.0	0.35	3.5
Beloit	56	-23	13.5	0.86	6.2	<i>Wyoming.</i>					
Berlin	54	-24	16.2	0.30	2.9	Big Horn Ranch†	59	-24	20.4	0.28	4.0
Black River Falls†	58	-32	11.2	0.50	5.0	Cheyenne	68	-36	21.8	0.34	0.4
Butternut†	55	-40	9.2	0.63	6.1	Fort Laramie†	57	-36	20.0	0.76	.....
Centralla	56	-29	10.4	0.25	2.5	Fort Washakie	44	-36	19.2	0.34	3.4
Chilton	55	-34	13.0	1.55	5.5	Fort Yellowstone†	70	-38†	15.9	0.15	1.5
Chippewa Falls†	56	-38	9.2	0.35	1.0	Lander	65	-26	20.8	0.75	4.0
City Point	65	-26	15.4	0.30	3.0	Lander (W. B.)	55	-30	18.0	0.14	T.
Columbus	55	-38	12.4	0.40	4.0	Laramie	54	-35	17.5	0.55	5.5
Crandon†	51	-34	11.8	1.45	10.8	Saratoga†	59	-38	13.8	0.90	9.0
Delavan†	55	-34	8.2	0.44	4.4	Sheridan	52	-31	14.8	2.10	21.0
Depere†	57	-34	11.0	0.56	5.3	<i>Mexico.</i>					
Eau Claire	56	-29	11.2	0.34	4.0	Ciudad P. Diaz	81	15	54.6	1.60	.....
Florence†	52	-45	8.6	0.40	3.5	Leon de Aldamas	77	32	58.4	0.44	.....
Fond du Lac†	52	-45	8.6	0.40	3.5	Mexico	75	33	57.4	0.00	.....
Grantsburg†	52	-45	8.6	0.40	3.5	Puebla	74	43	59.0	0.00	.....
Green Bay	56	-35	13.2	0.31	3.8	Topolobampo*†	80	52	64.7	0.51	.....
Hartford	52	-40	6.2	0.33	3.0	Vera Cruz	82	48	68.3	0.30	.....
Harvey†	55	-35	10.0	0.75	7.5	<i>New Brunswick.</i>					
Hayward†	55	-35	10.0	0.75	7.5	St. John	37	-7	30.3	2.69	28.0
Hillsboro	55	-35	10.0	0.75	7.5	<i>West Indies.</i>					
Janesville†	55	-34	10.0	0.61	6.1	Grand Turk Island	.....	.....	.....	0.03	.....
Koepnick*†	54	-34	10.0	0.61	6.1						
La Crosse	57	-25	10.0	1.30	7.5						
Lancaster†	57	-25	10.0	1.30	7.5						
Lincoln†	56	-21	11.0	0.26	.....					
Madison†	58	-22	11.0	0.49	4.2						
Manitowoc†	56	-34	11.4	0.42	7.0						
Meadow Valley†	53	-39	9.0	0.35	2.5						
Medford†	57	-40	7.4	0.55	5.0						
Menomonie	57	-40	7.4	0.55	5.0						
Milwaukee	54	-41	8.2	0.77	2.0						
Neillsville†	53	-34	10.0	0.70	7.0						
New Holstein†	52	-27	12.5	0.23	3.0						
Oconomowoc†	60	-23	14.3	0.35	3.5						
Oconto	52	-46	6.4	0.24	1.2						
Oscoda†	60	-22	17.1	T.	T.						
Oshkosh†	48	-30	9.2	0.64	6.0						
Pepin	48	-30	9.2	0.64	6.0						

EXPLANATION OF SIGNS.

* Extremes of temperature from observed readings of dry thermometer.

† Weather Bureau instruments.

‡ Record furnished by the Arrowhead Reservoir Company, in the San Bernardino Mountains, San Bernardino County, Cal., at elevations varying from 4,000 to 6,900 feet.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

¹ Mean of 7 a. m. + 2 p. m. + 9 p. m. + 4.

² Mean of 8 a. m. + 8 p. m. + 2.

³ Mean of 7 a. m. + 7 p. m. + 2.

⁴ Mean of 6 a. m. + 6 p. m. + 2.

⁵ Mean of 7 a. m. + 2 p. m. + 2.

⁶ Mean of readings at various hours reduced to true daily mean by special tables.

⁷ Mean from hourly readings of thermometer.

⁸ Mean of 7 a. m. + 2 p. m. + 9 p. m. + 3.

⁹ Mean of sunrise and noon.

¹⁰ Mean of sunrise, noon, sunset, and midnight.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of a station, as "Livingston a," "Livingston b," indicates that two or more observers, as the case may be, are reporting from the same station. A small roman letter following the name of a station, or in figure columns, indicates the number of days missing from the record; for instance, "a" denotes 14 days missing.

No note is made of breaks in the continuity of temperature records when the same do not exceed two days. All known breaks, of whatever duration, in the precipitation record receive appropriate notice.

Corrections: Missouri, Houston, January, 1895, minimum temperature should be -3 and mean temperature 26.5.

Reports received too late to be used in general discussion of weather for February, 1895.

Colorado.

Arkins	.....	.....	1.33	.....
Pinkhamton	.....	.....	0.65	.....
<i>Kansas.</i>				
Hays City	70	-24	21.6	1.95 2.0
<i>Nebraska.</i>				
Elba	.....	.....	0.88	.....

TABLE III.—Data from Canadian stations for the month of February, 1895.

Stations.	Pressure.			Temperature.		Precipitation.		Prevailing direction of wind.
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Total.	Departure from normal.	
St. John's, N. F.	Inches. 29.52	Inches. 29.67	Inches. - .35	° 24.7	° + 2.5	Inches. 4.75	Inches. -	n.
Sydney, C. B. I.	29.58	29.64	- .31	21.4	+ 2.9	4.14	- 0.05	sw.
Sable Island, N. S.	29.62	29.68	- .31	22.8	+ 1.3	4.57	- 0.13	w.
Halifax, N. S.	29.56	29.70	- .38	22.3	+ 1.3	4.57	- 0.13	w.
Grand Manan, N. B.	29.66	29.73	- .38	23.0	+ 1.9	1.97	- 1.49	n.
Yarmouth, N. S.	29.65	29.73	- .31	24.5	+ 1.0	3.36	- 2.46	n.
St. Andrews, N. B.	29.66	29.71	- .31	19.6	+ 3.05	0.71	0.71	nw.
Charlottetown, P. E. I.	29.63	29.67	- .31	18.0	+ 4.42	0.72	0.72	w.
Chatham, N. B.	29.69	29.71	- .37	13.2	+ 3.7	2.69	0.62	w.
Father Point, Que.	29.73	29.76	- .24	14.4	+ 4.4	3.69	+ 2.07	w.
Quebec, Que.	29.45	29.81	- .33	12.4	+ 2.4	2.00	1.39	nw.
Montreal, Que.	29.62	29.85	- .30	13.0	0.0	2.47	- 0.35	w.
Rockliffe, Que.	29.34	29.84	- .22	8.8	+ 2.3	0.82	- 1.50	nw.
Kingston, Ont.	29.60	29.64	- .14	13.8	- 2.7	1.36	- 1.08	w.
Toronto, Ont.	29.60	30.01	- .08	15.6	- 4.9	0.40	- 1.91	w.
White River, Ont.	28.58	30.06	- .12	1.2	+ 0.3	1.12	- 0.10	n.
Port Stanley, Ont.	29.38	30.07	- .02	14.5	.....	0.96	- 1.06	w.

TABLE III.—Data from Canadian stations—Continued.

Stations.	Pressure.			Temperature.		Precipitation.		Prevailing direction of wind.
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Total.	Departure from normal.	
Saugeen, Ont.	Inches. 29.24	Inches. 30.02	Inches. - .04	° 14.1	° -	Inches. 3.71	Inches. + 1.27	sw.
Parry Sound, Ont.	29.24	29.97	- .10	9.8	- 2.9	3.61	+ 1.21	sw.
Port Arthur, Ont.	29.23	29.97	- .10	9.8	- 2.9	3.61	+ 1.21	sw.
Winnipeg, Man.	29.04	29.04	- .05	7.6	+ 2.1	0.75	- 0.58	sw.
Minneapolis, Man.	29.19	29.19	- .08	- 0.4	+ 4.6	1.18	+ 0.01	nw.
Qu'Appelle, Assin.	29.19	29.19	- .04	2.2	+ 5.9	0.19	+ 0.79	nw.
Medicine Hat, Assin.	27.78	29.23	- .09	2.7	+ 5.9	0.87	+ 0.20	nw.
Swift Current, Assin.	27.78	29.23	- .09	10.6	+ 0.1	0.91	+ 0.47	sw.
Calgary, Alberta	27.46	29.23	- .09	7.2	+ 1.3	0.50	- 0.28	sw.
Prince Albert, Sask.	28.42	30.16	- .07	13.1	+ 3.6	0.57	- 0.19	nw.
Edmonton, Alberta	28.57	30.21	- .04	4.0	.....	0.37	.....	sw.
Battleford, Sask.	27.70	30.19	- .09	11.6	+ 5.0	0.90	+ 0.44	nw.
Spences Bridge, B. C.	28.34	30.23	- .09	1.0	.....	0.29	.....	nw.
Hamilton, Bermuda.	29.23	30.13	- .13	35.2	.....	0.22	.....	sw.
Bank, Alberta	29.82	29.98	- .13	60.0	.....	5.75	.....	sw.
Esquimalt, B. C.	29.34	30.20	- .13	15.7	.....	1.18	.....	sw.
	30.08	30.11	.....	42.7	.....	2.62	.....	n.

TABLE IV.—Mean temperature for each hour of seventy-fifth meridian time, February, 1895.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Abilene, Tex.....	30.6	29.9	30.7	29.1	28.6	28.0	27.6	27.9	26.7	28.3	30.6	33.6	35.5	36.8	37.8	38.5	38.9	38.7	38.0	36.1	34.4	33.8	33.0	32.4	33.7
Albany, N. Y.....	17.1	16.4	16.5	16.4	16.0	15.5	14.9	15.4	16.8	18.9	21.0	22.3	23.2	24.1	24.4	24.7	23.8	22.9	21.9	21.2	20.5	19.7	19.1	18.6	19.6
Alpena, Mich.....	14.3	13.9	13.9	13.4	12.0	11.3	10.6	10.6	11.8	14.2	16.3	17.8	18.9	20.0	20.7	20.9	20.9	20.1	19.2	17.6	16.9	16.3	15.8	15.5	15.9
Amarillo, Tex.....	22.5	22.1	21.6	21.0	20.3	20.0	20.0	20.3	20.0	21.2	23.4	25.2	27.5	29.5	31.0	32.5	33.2	32.9	31.5	29.5	27.6	26.4	24.8	24.0	25.3
Atlanta, Ga.....	32.6	32.0	31.5	30.9	30.2	29.7	29.3	29.0	28.8	31.2	34.0	36.0	37.4	38.5	39.3	39.6	39.9	39.4	38.2	37.0	36.2	35.3	34.7	34.1	34.4
Augusta, Ga.....	34.7	34.0	33.5	33.0	32.5	32.2	32.0	32.6	33.9	36.5	38.9	41.2	42.7	43.9	45.2	45.8	45.6	44.4	42.8	41.2	39.2	38.1	36.7	35.8	38.2
Baker City, Oreg.....	25.8	25.1	24.4	23.6	23.8	23.5	23.1	22.9	22.7	22.9	23.9	26.7	30.2	32.8	34.2	35.1	36.3	36.3	35.4	33.9	30.8	29.2	27.9	26.9	28.2
Baltimore, Md.....	34.0	33.1	32.5	32.0	31.6	31.1	31.1	31.6	32.9	35.1	37.2	39.0	40.0	41.1	41.8	41.9	41.3	40.4	39.4	38.4	37.6	36.8	36.0	35.4	36.3
Bismarck, N. Dak.....	7.4	7.1	6.9	6.8	6.3	5.8	4.9	4.3	4.7	5.6	8.4	11.2	13.3	14.7	16.1	17.5	17.4	16.6	14.6	12.8	11.6	10.6	9.4	8.3	10.1
Boston, Mass.....	31.9	31.4	31.3	30.7	30.4	30.1	19.7	20.3	21.8	23.9	25.5	27.4	28.4	29.5	29.8	29.5	28.9	28.0	26.8	25.9	25.1	24.3	24.1	23.3	24.5
Buffalo, N. Y.....	14.4	14.3	14.5	14.5	14.4	14.3	14.2	14.5	15.0	16.3	17.4	18.4	19.0	19.4	19.9	20.0	19.8	18.9	18.4	17.6	17.0	16.4	15.8	15.3	16.7
Charleston, S. C.....	38.2	37.8	37.4	36.9	36.7	36.3	36.1	36.4	37.6	39.8	42.0	43.8	45.1	45.7	45.9	45.8	45.0	44.2	42.6	41.2	40.7	40.2	39.5	39.0	40.6
Charlotte, N. C.....	19.7	18.4	18.6	18.1	17.6	17.3	17.2	17.6	18.7	20.7	22.7	24.3	25.3	26.8	28.2	29.1	30.3	30.4	29.4	28.4	27.6	26.8	26.0	25.4	26.3
Cheyenne, Wyo.....	19.1	19.0	18.0	17.1	16.9	16.2	16.6	16.8	17.1	18.4	21.7	25.0	26.3	27.8	28.7	29.2	29.2	28.1	26.7	25.9	25.2	24.5	24.0	23.5	24.9
Chicago, Ill.....	16.5	15.5	14.9	14.1	13.9	13.7	13.0	12.9	13.6	14.7	16.0	17.6	18.9	19.9	21.2	22.1	22.5	22.1	21.2	20.9	20.0	19.3	18.7	18.3	17.6
Cincinnati, Ohio.....	21.0	21.3	20.3	20.0	19.7	19.2	18.7	18.7	18.8	20.0	22.1	24.1	25.5	26.7	27.5	28.1	28.6	28.6	27.9	27.1	26.3	25.5	24.7	23.9	25.6
Cleveland, Ohio.....	18.0	17.7	17.1	16.7	16.5	16.3	15.8	16.1	16.4	17.3	18.5	20.0	20.9	21.9	22.4	22.5	22.5	22.2	21.9	21.4	20.8	20.3	20.0	19.7	19.3
Columbus, Ohio.....	19.2	18.4	17.5	17.0	16.6	16.2	15.8	15.6	16.7	18.6	20.6	22.6	24.6	26.0	26.8	26.9	26.4	25.6	24.5	23.6	22.7	21.8	21.3	20.6	21.1
Denver, Colo.....	25.6	25.1	22.2	22.1	21.5	20.9	20.0	19.7	19.8	20.7	23.4	27.1	29.9	31.6	33.0	34.1	34.6	33.7	32.6	31.1	29.9	27.5	26.1	25.2	26.4
Des Moines, Iowa.....	16.4	15.5	14.9	14.3	13.7	12.9	12.4	12.1	12.3	13.8	14.0	16.4	19.1	21.8	24.2	26.0	27.1	26.6	25.4	24.1	22.5	20.9	20.0	19.0	19.1
Detroit, Mich.....	16.2	15.5	14.7	14.6	14.1	13.5	13.3	13.4	14.0	15.7	17.7	19.4	20.4	21.4	22.2	22.5	22.3	21.9	21.0	20.2	19.6	18.9	18.4	18.0	17.9
Dodge City, Kans.....	30.6	19.9	19.6	19.2	18.8	18.2	18.2	17.2	17.5	19.0	22.1	26.2	28.8	30.2	31.5	32.6	32.8	32.2	30.9	28.0	26.1	24.6	23.5	22.6	24.2
Duluth, Minn.....	10.0	9.8	8.5	7.8	7.3	6.8	6.5	6.3	6.1	7.5	10.3	13.0	15.7	17.6	19.1	19.6	19.6	18.8	17.2	16.1	15.1	14.3	13.2	12.2	12.4
Eastport, Me.....	19.5	19.3	19.0	18.7	18.4	18.2	18.3	19.0	20.1	21.2	22.9	23.8	24.8	25.4	25.5	25.4	24.7	24.0	23.3	22.6	21.8	21.1	20.5	20.0	21.6
El Paso, Tex.....	40.3	38.9	37.6	36.1	34.9	34.0	33.3	32.6	32.1	33.2	37.0	41.2	45.0	48.2	51.4	53.6	55.2	55.9	55.6	51.7	49.2	46.2	44.1	41.8	42.9
Fort Smith, Ark.....	30.2	29.6	28.9	28.4	27.8	27.2	26.7	26.9	27.9	30.3	33.1	35.5	38.0	39.6	40.8	41.2	41.2	40.2	39.0	38.2	36.5	35.3	34.1	32.2	33.7
Galveston, Tex.....	42.8	42.5	42.0	41.6	41.4	41.0	40.9	40.5	40.7	41.0	41.2	42.5	43.2	43.8	44.1	44.7	45.1	44.8	44.6	44.4	43.9	43.8	43.5	43.2	42.8
Grand Haven, Mich.....	18.6	18.4	18.4	18.2	18.0	17.4	17.2	16.7	16.9	17.8	18.5	19.4	20.0	20.4	20.6	20.8	20.5	20.2	20.1	20.0	20.1	19.8	19.5	19.1	19.1
Havre, Mont.....	7.5	7.7	7.3	7.2	7.1	6.7	6.8	6.6	6.3	6.5	8.3	10.4	12.6	14.1	15.5	16.5	17.5	17.6	16.8	14.8	12.9	11.9	10.7	10.5	10.8
Helena, Mont.....	18.8	18.0	17.0	16.5	16.2	15.6	15.1	15.3	16.8	16.0	16.9	18.4	20.1	22.3	24.0	27.1	28.2	26.9	26.1	24.1	22.3	21.4	20.8	20.3	20.2
Huron, S. Dak.....	9.0	8.2	7.5	7.3	6.6	6.9	6.8	7.1	6.9	8.2	11.3	13.8	15.9	17.6	19.1	19.9	20.6	19.9	17.9	16.1	14.2	12.4	11.6	10.8	12.3
Independence, Cal.....	43.0	42.0	41.6	40.3	39.9	39.0	37.6	38.1	37.6	36.6	39.4	42.4	46.1	49.2	52.0	53.8	54.9	55.4	55.2	52.2	48.2	46.9	45.1	44.0	45.0
Indianapolis, Ind.....	19.6	19.2	18.5	17.8	17.2	16.7	16.1	15.9	17.0	19.0	21.5	23.9	26.5	27.4	28.2	28.5	28.2	27.2	25.9	25.2	24.3	23.4	22.5	21.4	22.1
Jacksonville, Fla.....	43.0	42.9	42.7	42.4	42.2	42.0	42.2	42.8	44.4	46.4	48.3	50.3	50.9	51.5	51.8	52.2	51.6	50.3	48.7	47.6	46.4	45.6	44.8	43.9	46.5
Kansas City, Mo.....	29.3	29.9	29.2	28.1	27.0	26.2	25.8	25.3	26.1	28.5	31.4	34.2	36.9	38.3	39.6	40.4	40.7	40.6	39.7	38.7	37.5	36.6	35.8	35.2	36.9
Key West, Fla.....	63.2	62.9	63.0	62.8	62.6	62.5	62.7	63.4	64.1	65.1	65.5	65.6	65.9	65.7	65.9	66.0	65.0	64.3	63.9	63.6	63.3	63.3	63.2	63.2	64.0
Knoxville, Tenn.....	28.8	28.2	27.5	27.0	26.3	25.7	24.8	24.6	25.9	28.0	29.9	31.9	33.3	34.7	35.9	36.5	36.6	36.2	35.1	34.0	32.7	32.0	31.2	30.4	30.7
Lander, Wyo.....	14.0	13.5	12.9	11.8	10.5	9.2	8.6	8.3	7.8	9.1	13.0	18.5	23.2	26.4	28.2	29.7	31.3	31.3	30.3	29.2	28.0	27.0	26.0	25.4	26.1
Little Rock, Ark.....	33.0	31.6	31.1	30.3	29.5	29.0	28.4	27.9	28.6	30.4	33.3	35.7	37.3	38.8	40.1	40.6	41.2	40.8	39.9	39.0	37.8	36.6	35.4	34.4	34.6
Louisville, Ky.....	24.1	23.2	23.1	22.3	21.6	20.8	20.4	20.1	20.9	22.6	25.0	27.7	29.6	31.6	32.2	32.8	32.9	32.1	31.4	30.4	29.5	28.4	27.5	26.2	28.3
Lynchburg, Va.....	26.1	25.4	24.8	24.1	23.7	23.3	23.0	23.9	25.6	28.8	31.3	33.1	34.6	35.8	36.9	37.0	36.7	35.0	33.4	31.9	29.5	29.6	28.7	28.0	29.6
Marquette, Mich.....	19.1	11.8	11.4	10.8	10.5	10.4	10.2	10.4	10.9	12.4	14.1	16.1	17.8	18.0	18.5	19.0	18.3	17.5	16.7	16.0	15.0	14.2	13.9	13.4	14.1
Memphis, Tenn.....	32.6	32.1	31.3	30.6	29.9	29.5	28.8	28.4	29.0	30.7	32.6	34.6	36.6	38.1	39.1	39.9	39.8	39.5	38.6	37.8	36.9	36.1	35.5	34.7	34.3
Milwaukee, Wis.....	13.9	12.8	12.1	11.9	11.4	10.9	10.9	11.0	11.5	13.0	14.8	17.1	18.5	19.5	20.5	21.1	21.0	20.5	19.2	18.4	17.9	17.2	16.4	15.9	15.7
Montgomery, Ala.....	37.6	36.8	35.9	35.1	34.6	34.1	33.5	33.4	34.9	36.7	38.8	41.7	43.4	44.5	45.9	46.1	46.2	45.8	44.4	43.3	42.1	41.1	39.8	38.9	39.8
Moorhead, Minn.....	1.5	1.6	1.8	1.4	0.9	0.5	0.2	0.2	-0.2	1.5	3.9	6.1	8.3	10.4	11.6	12.5	12.7	12.5	10.7	9.0	7.0	5.7	4.5	3.5	5.3
Nantucket, Mass.....	25.1	24.8	24.6	24.4	24.1	23.9	23.9	24.7	25.3	26.2	26.7	27.4	27.8	28.2	28.3	28.1	27.5	26.9	26.6	26.3	26.2	26.0	25.9	25.8	26.0
Nashville, Tenn.....	28.4	27.8	26.6	26.0	25.1	24.3	23.8	23.4	23.9	26.3	29.8	32.2	34.2	35.9	37.0	37.4	37.3	36.8	35.6	34.5	33.4	32.5	31.4	30.8	30.6
New Haven, Conn.....	30.8	30.4	29.6	29.1	28.7	28.0	27.6	28.4	29.9	31.6	33.7	35.3	36.5	37.5	38.2	38.3	37.6	36.5	35.6	34.6	33.4	32.6	32.2	32.3	32.0
New Orleans, La.....	43.0	42.6	42.2	41.6	41.3	41.0	40.6	40.2	40.3	41.6	43.6	45.6	47.1	48.0	48.5	49.1	49.3	48.6	47.9	46.6	45.4	44.8	44.3	44.6	44.6
New York, N. Y.....																									

TABLE V.—Mean pressure for each hour of seventy-fifth meridian time, February, 1895.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Ablene, Tex.....	28.402	.402	.400	.394	.390	.387	.385	.387	.390	.393	.395	.399	.391	.380	.359	.346	.328	.340	.348	.359	.367	.380	.387	.391	.389
Albany, N. Y.....	29.898	.891	.882	.846	.845	.848	.855	.862	.865	.864	.859	.845	.838	.817	.815	.816	.824	.831	.837	.841	.841	.844	.844	.845	.844
Alpena, Mich.....	29.302	.302	.305	.306	.310	.316	.319	.322	.324	.321	.315	.306	.298	.273	.269	.265	.264	.268	.274	.272	.277	.278	.278	.279	.283
Atlanta, Ga.....	28.941	.940	.936	.928	.941	.946	.952	.963	.970	.980	.986	.977	.966	.934	.924	.920	.921	.929	.932	.935	.938	.941	.938	.934	.945
Augusta, Ga.....	29.972	.971	.965	.961	.964	.968	.974	.981	.986	.988	.986	.977	.964	.933	.922	.920	.922	.931	.940	.946	.951	.959	.961	.963	.968
Baltimore, Md.....	29.847	.844	.841	.839	.840	.844	.848	.856	.859	.853	.847	.835	.814	.795	.791	.793	.801	.807	.800	.821	.824	.827	.828	.825	.829
Bismarck, N. Dak..	28.317	.315	.314	.314	.313	.315	.326	.334	.340	.351	.360	.361	.392	.332	.338	.330	.330	.339	.336	.339	.334	.318	.318	.318	.320
Boston, Mass.....	29.735	.730	.730	.714	.711	.713	.728	.737	.734	.723	.715	.699	.680	.673	.673	.680	.688	.698	.702	.704	.707	.708	.708	.706	.707
Buffalo, N. Y.....	29.258	.252	.245	.238	.236	.240	.248	.256	.263	.262	.263	.256	.244	.234	.232	.233	.236	.241	.243	.242	.241	.239	.238	.235	.245
Charleston, N. C..	30.119	.115	.112	.107	.109	.115	.122	.128	.137	.143	.140	.121	.104	.080	.075	.071	.076	.083	.088	.096	.104	.110	.115	.114	.108
Chicago, Ill.....	29.227	.225	.225	.219	.218	.219	.222	.228	.233	.236	.237	.236	.219	.206	.196	.193	.198	.198	.199	.208	.206	.204	.208	.206	.215
Cincinnati, Ohio..	29.496	.495	.490	.487	.488	.495	.501	.508	.517	.518	.520	.515	.494	.474	.469	.466	.468	.472	.475	.475	.474	.475	.474	.471	.468
Cleveland, Ohio..	29.271	.265	.266	.266	.268	.272	.278	.278	.285	.282	.280	.278	.263	.246	.240	.240	.244	.251	.253	.249	.244	.245	.246	.247	.261
Columbus, Ohio....	29.251	.249	.249	.243	.244	.249	.258	.264	.270	.268	.268	.262	.248	.226	.224	.222	.224	.229	.233	.232	.231	.232	.230	.228	.248
Denver, Colo.....	24.781	.777	.771	.763	.759	.766	.762	.765	.768	.774	.775	.795	.801	.794	.776	.762	.759	.762	.767	.772	.783	.786	.789	.790	.775
Des Moines, Iowa..	29.280	.279	.276	.273	.271	.270	.269	.273	.276	.282	.286	.288	.275	.253	.239	.232	.234	.239	.242	.247	.245	.249	.253	.256	.262
Detroit, Mich.....	29.262	.258	.258	.255	.260	.265	.267	.274	.279	.281	.280	.276	.259	.244	.238	.236	.238	.240	.247	.246	.244	.241	.239	.238	.255
Dodge City, Kans..	29.746	.741	.735	.731	.732	.732	.730	.734	.733	.731	.722	.705	.682	.652	.632	.612	.600	.592	.590	.595	.594	.590	.587	.581	.568
Duluth, Minn.....	29.304	.302	.303	.300	.299	.298	.299	.299	.300	.300	.299	.296	.283	.271	.259	.257	.262	.266	.275	.282	.282	.285	.286	.289	.287
Eastport, Me.....	29.662	.660	.656	.656	.656	.654	.661	.668	.666	.664	.649	.634	.616	.600	.606	.604	.613	.620	.630	.634	.638	.636	.639	.637	.640
El Paso, Tex.....	26.267	.266	.261	.259	.256	.253	.250	.261	.272	.283	.289	.290	.281	.269	.252	.232	.211	.201	.195	.196	.208	.221	.226	.229	.248
Eureka, Cal.....	30.086	.088	.089	.080	.080	.089	.088	.085	.076	.072	.076	.085	.093	.098	.096	.088	.074	.067	.065	.064	.064	.071	.074	.077	.081
Fort Canby, Wash.	29.974	.914	.914	.914	.913	.908	.903	.901	.896	.896	.896	.915	.923	.931	.931	.927	.930	.916	.912	.909	.909	.911	.910	.906	.911
Galveston, Tex....	30.216	.215	.209	.207	.207	.210	.221	.232	.241	.244	.242	.238	.220	.195	.174	.164	.161	.163	.171	.180	.188	.200	.205	.206	.205
Grand Haven, Mich	29.377	.381	.381	.367	.367	.371	.375	.381	.385	.384	.379	.372	.363	.350	.347	.342	.342	.345	.348	.346	.345	.344	.347	.351	.362
Havre, Mont.....	27.490	.492	.493	.491	.484	.481	.483	.482	.486	.490	.496	.497	.500	.490	.476	.461	.457	.451	.453	.454	.464	.474	.482	.491	.490
Helena, Mont.....	25.911	.914	.922	.923	.925	.925	.930	.929	.929	.932	.934	.934	.933	.923	.908	.890	.883	.882	.881	.887	.896	.902	.909	.912	.913
Huron, S. Dak....	29.774	.778	.779	.777	.776	.777	.777	.776	.770	.774	.776	.785	.782	.775	.761	.752	.754	.755	.759	.766	.760	.761	.760	.764	.769
Independence, Cal.	26.108	.109	.108	.108	.108	.105	.107	.109	.116	.127	.137	.144	.148	.144	.132	.121	.102	.098	.099	.096	.070	.086	.095	.105	.105
Indianapolis, Ind..	29.325	.324	.323	.324	.324	.327	.330	.340	.348	.352	.348	.335	.317	.301	.296	.295	.299	.306	.306	.307	.305	.301	.300	.300	.320
Jacksonville, Fla..	30.111	.110	.105	.108	.104	.112	.125	.134	.147	.149	.143	.128	.109	.083	.070	.065	.070	.075	.088	.096	.106	.112	.111	.108	.106
Kansas City, Mo...	29.219	.213	.210	.206	.203	.202	.207	.209	.216	.222	.226	.230	.225	.205	.184	.176	.178	.174	.177	.186	.191	.198	.201	.199	.202
Key West, Fla.....	30.122	.122	.114	.111	.113	.120	.134	.146	.159	.167	.166	.152	.132	.112	.101	.097	.096	.106	.115	.125	.132	.138	.140	.135	.128
Knoxville, Tenn...	29.122	.121	.120	.115	.117	.122	.132	.138	.146	.149	.151	.144	.130	.101	.080	.063	.064	.060	.068	.069	.103	.106	.109	.106	.115
Little Rock, Ark...	29.928	.929	.929	.925	.925	.932	.939	.950	.961	.970	.976	.971	.944	.916	.894	.883	.878	.879	.887	.894	.900	.907	.913	.916	.928
Louisville, Ky.....	29.618	.617	.619	.616	.618	.622	.630	.639	.647	.650	.651	.646	.628	.606	.589	.586	.582	.582	.584	.586	.588	.591	.592	.594	.612
Lynchburg, Va.....	29.329	.329	.325	.326	.331	.336	.342	.345	.348	.351	.345	.328	.303	.285	.279	.278	.280	.289	.301	.306	.308	.306	.307	.306	.316
Marquette, Mich...	29.202	.204	.201	.195	.193	.190	.188	.189	.185	.185	.186	.177	.166	.150	.138	.127	.126	.129	.131	.134	.134	.134	.134	.134	.184
Memphis, Tenn....	29.904	.900	.897	.897	.897	.903	.911	.919	.930	.940	.945	.944	.925	.899	.879	.869	.867	.870	.871	.875	.880	.882	.886	.887	.899
Milwaukee, Wis....	29.325	.324	.323	.324	.324	.327	.330	.340	.348	.352	.348	.335	.317	.301	.296	.295	.299	.306	.306	.307	.305	.301	.300	.300	.352
Moorhead, Minn...	29.118	.114	.114	.108	.109	.107	.108	.105	.106	.115	.125	.131	.131	.123	.118	.119	.123	.121	.120	.121	.115	.111	.114	.110	.116
Nantucket, Mass...	29.870	.865	.858	.851	.852	.859	.862	.867	.865	.860	.852	.836	.821	.813	.811	.815	.820	.831	.840	.844	.850	.852	.853	.850	.846
Nashville, Tenn...	29.625	.627	.626	.623	.626	.632	.637	.643	.651	.651	.651	.642	.619	.598	.584	.581	.582	.587	.586	.588	.596	.601	.602	.602	.615
New Haven, Conn...	29.801	.797	.786	.785	.787	.794	.803	.813	.815	.812	.809	.791	.772	.760	.758	.758	.763	.769	.774	.778	.781	.784	.784	.779	.785
New Orleans, La...	30.159	.154	.151	.147	.147	.150	.160	.168	.185	.195	.194	.186	.165	.140	.122	.113	.115	.121	.130	.136	.141	.151	.156	.154	.152
New York, N. Y....	29.753	.752	.745	.744	.747	.752	.756	.768	.772	.776	.768	.756	.738	.726	.725	.722	.725	.733	.738	.742	.746	.746	.739	.738	.746
Norfolk, Va.....	30.015	.012	.010	.008	.012	.017	.025	.033	.037	.037	.034	.016	.009	.072	.062	.061	.065	.076	.088	.099	.095	.097	.098	.097	.092
Omaha, Nebr.....	29.025	.026	.021	.018	.010	.011	.012	.011	.016	.019	.023	.024	.018	.000	.984	.978	.981	.986	.990	.996	.002	.001	.005	.005	.007
Parkersburg, W. Va	29.464	.462	.460	.455	.456	.462	.468	.480	.486	.486	.486	.479	.459	.450	.435	.432	.435	.438	.437	.442	.441	.441	.441	.443	.456
Philadelphia, Pa...	29.886	.881	.877	.878	.881	.885	.891	.899	.903	.908	.904	.886	.866	.852	.847	.845	.849	.852	.860	.862	.865	.864	.861	.862	.873
Pittsburg, Pa.....	29.170	.170	.168	.165	.165	.167	.173	.182	.186	.186	.185	.178	.164	.148	.140	.139	.141	.147	.149	.153	.152	.149	.149	.151	.161
Portland, Ore.....	30.016	.017	.017	.018	.018	.015	.013	.015	.014	.017	.027	.032	.038	.038	.025	.015	.005	.000	.997	.994	.997	.002	.006	.011	.014
Rochester, N. Y....	29.393	.393	.385	.380	.375	.374	.379	.386	.389	.391	.393	.387	.373	.368	.369	.376	.380	.385	.386	.381	.379	.374	.373	.373	.381
Roseburg, Ore.....	29.551	.554	.560	.563	.563	.564	.567	.567	.566	.565	.567	.574	.580	.580	.570	.556	.537	.531	.514	.510	.512	.517	.538	.534	.551
St. Louis, Mo.....	29.633	.630	.628	.625	.624	.626	.631	.635	.641	.650	.651	.647	.637	.613	.600	.599	.594	.595	.594	.606	.607	.609			

MONTHLY WEATHER REVIEW.

TABLE VI.—Average wind movement for each hour of seventy-fifth meridian time, February, 1895.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Ablene, Tex.	8.5	8.8	9.0	9.2	9.0	8.8	9.0	8.8	9.8	9.9	11.1	11.1	12.8	12.9	12.6	12.3	12.4	11.9	10.6	8.8	8.9	9.3	9.2	8.7	10.1
Albany, N. Y.	6.4	7.0	6.9	6.8	6.5	6.8	7.4	7.8	8.2	9.6	11.3	11.8	12.6	12.3	12.1	11.1	11.0	10.2	9.5	9.1	8.1	7.6	7.9	7.3	9.0
Albany, Mich.	9.6	9.6	9.1	9.3	9.3	9.6	10.3	9.9	10.1	10.8	11.8	12.8	13.5	13.7	13.8	13.3	13.1	11.0	10.6	10.3	9.4	9.1	8.7	8.5	10.6
Amarillo, Tex.	15.4	15.9	15.2	14.1	13.8	13.3	13.0	13.5	13.5	12.7	13.2	14.9	14.6	14.4	14.0	13.9	13.6	12.4	12.8	13.0	13.3	14.2	14.7	15.1	14.0
Atlanta, Ga.	10.5	10.4	10.8	11.3	11.1	11.5	11.5	11.6	11.9	12.5	13.0	12.9	13.3	12.9	12.6	12.7	12.5	11.4	10.4	10.6	9.9	10.4	10.5	10.1	11.5
Augusta, Ga.	4.1	3.8	4.0	3.9	3.9	4.1	4.6	4.5	5.4	6.1	6.8	7.0	8.2	7.7	8.1	8.2	8.5	7.6	7.1	6.1	5.9	5.2	4.6	4.0	5.8
Baker City, Oreg.	5.2	5.5	5.6	5.9	5.9	6.1	5.5	5.4	5.5	6.1	5.8	5.3	4.8	4.3	4.8	4.2	4.5	4.1	4.5	4.1	4.2	4.2	4.8	5.3	5.1
Baltimore, Md.	8.2	8.1	8.1	8.5	8.5	8.3	9.0	9.7	10.2	12.0	13.0	13.3	14.7	14.4	14.7	14.1	13.0	11.6	10.9	9.4	9.1	8.7	8.5	8.2	10.6
Bismarck, N. Dak.	7.5	7.9	8.2	7.5	7.9	9.0	8.9	8.6	9.1	9.4	9.6	10.9	11.9	12.1	12.8	13.2	13.9	13.6	12.4	12.8	13.0	13.3	14.2	14.7	15.1
Block Island, R. I.	18.5	18.6	19.4	19.4	19.2	19.7	19.9	19.4	19.6	20.4	19.3	18.8	18.9	18.9	18.7	19.1	18.1	18.7	19.0	19.6	19.4	19.2	19.2	18.8	19.2
Boston, Mass.	13.2	13.2	12.5	12.5	12.0	12.4	12.0	12.5	14.0	14.4	14.8	15.4	15.4	15.4	15.3	14.9	14.1	13.2	13.2	12.8	12.9	12.0	12.8	13.8	13.5
Buffalo, N. Y.	14.0	14.2	14.3	14.1	14.5	14.1	15.0	14.8	14.9	15.2	15.4	16.8	17.5	18.0	18.0	18.0	17.0	16.9	16.2	15.2	15.3	14.5	14.2	14.2	15.5
Cairo, Ill.	9.4	8.6	8.3	8.2	8.2	7.8	7.9	7.8	7.7	8.7	9.6	10.2	9.8	9.8	10.6	10.5	10.5	10.5	10.1	8.8	7.9	9.0	9.4	9.7	10.0
Cape Henry, Va.	15.6	16.1	15.9	16.5	16.8	16.1	16.0	16.2	15.9	16.2	16.2	16.4	16.5	16.2	15.2	14.6	13.9	13.0	13.0	13.2	13.2	14.4	15.4	15.5	15.4
Charleston, S. C.	7.9	8.0	8.4	8.0	8.0	8.2	8.5	8.2	9.1	8.6	8.7	9.0	9.6	10.8	10.5	10.5	10.6	10.2	9.7	8.7	7.8	7.8	7.4	7.2	8.8
Charlotte, N. C.	6.9	7.0	7.1	6.9	6.8	6.4	6.5	6.6	6.6	7.9	8.2	8.4	8.2	8.6	8.7	8.7	8.1	7.0	6.2	6.9	7.0	7.5	7.8	7.5	7.4
Chattanooga, Tenn.	6.5	6.4	6.3	6.5	6.5	6.9	6.9	6.2	6.7	7.9	7.9	7.9	7.9	8.2	8.2	8.2	8.1	7.0	6.3	6.4	6.2	6.2	6.2	6.3	7.1
Cheyenne, Wyo.	12.9	12.3	11.4	11.8	12.5	11.9	12.4	11.9	12.1	13.3	14.2	16.2	17.3	17.5	18.2	18.2	18.2	18.2	16.5	13.6	13.5	14.0	13.9	13.7	14.4
Chicago, Ill.	18.2	18.1	18.3	17.7	17.7	16.4	17.1	17.4	18.1	18.3	18.6	18.6	19.4	19.9	19.8	19.8	20.0	18.6	17.6	17.6	17.7	17.8	18.2	18.1	18.4
Cincinnati, Ohio.	8.2	8.0	8.0	7.6	7.2	6.8	6.9	6.8	7.6	8.2	8.4	8.9	9.9	10.0	10.4	10.5	10.5	10.5	10.5	10.5	10.5	11.6	11.1	11.5	12.3
Cleveland, Ohio.	15.2	15.2	15.9	15.8	15.0	16.0	15.9	15.0	14.7	15.1	15.1	16.0	16.2	17.6	17.8	17.6	16.1	15.6	15.5	15.6	15.6	16.0	15.9	16.0	15.9
Columbia, Mo.	6.0	5.9	5.5	5.1	5.2	5.6	5.5	5.4	6.1	7.3	8.2	8.6	9.1	9.8	9.8	9.1	8.8	9.2	9.2	9.2	9.2	9.5	9.4	9.3	10.0
Columbus, Ohio.	6.7	6.9	6.6	7.0	6.7	6.8	6.6	6.8	6.8	7.8	8.2	8.2	8.2	8.3	8.8	9.1	9.2	9.1	8.6	8.3	8.1	8.0	7.6	7.6	8.6
Concordia, Kans.	7.5	7.8	7.2	7.3	6.4	6.3	6.8	6.2	6.9	8.0	9.1	9.8	9.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	12.2	12.4	12.4	12.8
Corpus Christi, Tex.	11.6	12.0	11.6	11.4	11.4	11.5	11.2	11.5	11.5	12.0	12.2	12.1	12.5	12.6	13.0	13.0	14.5	14.7	14.8	14.5	12.9	11.6	11.1	11.5	12.3
Davenport, Iowa.	9.1	8.5	8.8	8.3	8.9	8.5	8.4	8.0	8.1	9.2	10.3	10.9	11.9	12.6	12.5	13.0	13.0	13.2	11.7	10.6	9.8	9.8	9.5	9.4	10.7
Denver, Colo.	7.7	8.1	8.1	8.8	7.6	7.1	7.9	8.0	7.5	7.2	7.7	7.7	8.3	9.4	9.6	10.4	10.5	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
Des Moines, Iowa.	7.5	8.1	7.8	7.9	7.3	7.6	7.7	7.1	7.2	8.2	9.5	9.4	9.6	10.4	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Detroit, Mich.	12.5	12.0	11.5	11.0	10.9	11.0	10.9	11.2	11.4	12.4	13.0	13.3	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Dodge City, Kans.	8.6	8.7	8.5	8.5	7.2	7.1	6.9	7.5	7.9	8.2	8.0	10.7	11.2	12.7	13.6	14.1	14.5	14.3	13.5	13.5	11.9	10.0	9.4	8.8	10.0
Duluth, Minn.	11.7	12.0	12.0	12.0	12.2	12.3	12.3	11.4	10.4	8.6	9.0	9.3	10.8	11.4	10.8	10.9	11.1	10.3	9.4	8.2	8.3	9.4	10.6	11.3	12.0
Eastport, Me.	14.0	13.1	13.3	13.6	13.3	13.9	14.1	13.4	14.3	14.4	15.3	15.5	15.1	13.9	13.0	13.8	13.7	13.4	13.4	13.7	13.9	14.4	14.4	14.1	14.3
El Paso, Tex.	9.9	10.7	10.8	10.4	9.2	9.4	9.1	9.7	9.8	9.8	10.2	11.2	12.2	12.8	13.3	13.6	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Erie, Pa.	12.4	12.4	11.4	11.8	12.2	11.6	11.4	12.0	11.2	12.2	13.2	13.2	13.2	13.3	13.6	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Eureka, Cal.	4.5	4.4	4.1	4.0	4.0	3.6	4.5	4.1	4.1	4.1	4.1	3.9	3.9	4.0	4.8	5.4	6.7	6.9	6.8	7.5	7.3	6.1	5.4	5.1	4.6
Fort Canby, Wash.	16.2	16.5	17.0	16.1	16.0	16.6	16.6	16.2	15.9	17.2	17.2	16.6	16.6	15.4	15.0	15.0	15.4	15.1	14.9	14.2	14.6	14.5	15.4	15.0	15.7
Fort Smith, Ark.	6.6	6.9	6.2	6.5	6.4	6.1	5.4	5.6	5.7	6.5	6.4	6.1	6.5	7.1	8.4	9.6	10.2	10.0	9.6	8.3	6.4	6.2	6.2	6.3	7.1
Fresno, Cal.	4.0	3.9	3.7	3.4	3.9	3.0	4.0	3.9	3.6	3.9	3.5	4.0	4.6	5.3	5.5	5.3	5.5	5.5	5.0	5.0	5.0	4.4	4.4	4.5	4.4
Galveston, Tex.	16.0	15.9	15.6	15.4	15.2	15.0	14.7	14.7	14.9	14.5	15.1	15.1	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Grand Haven, Mich.	11.5	11.4	11.1	11.2	11.0	10.9	10.9	10.7	11.0	11.5	12.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Green Bay, Wis.	9.4	9.4	9.5	8.8	8.1	8.1	8.1	8.7	9.0	9.1	9.9	10.5	11.1	11.8	12.0	12.2	12.4	11.4	10.3	9.1	9.1	9.2	9.1	8.6	8.5
Hannibal, Mo.	7.9	8.1	8.0	7.6	7.9	7.6	7.8	7.8	8.0	9.0	9.6	10.7	10.7	11.8	11.8	11.6	12.2	12.3	12.3	10.9	9.5	8.3	8.3	9.1	7.7
Harrisburg, Pa.	9.4	9.4	9.9	10.0	9.8	9.6	10.1	9.9	10.9	11.1	11.4	11.7	12.7	13.4	12.6	12.9	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
Hatteras, N. C.	30.1	29.3	29.7	19.6	19.9	19.8	19.9	18.4	20.1	19.5	20.0	18.9	20.0	18.9	17.9	18.3	19.0	19.8	18.4	18.8	19.9	19.3	19.2	19.2	19.8
Havre, Mont.	8.2	8.1	8.6	8.9	8.8	8.1	8.6	8.6	8.9	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Helena, Mont.	7.0	7.5	6.4	5.6	6.0	5.5	4.1	4.7	4.9	4.6	4.5	3.8	3.8	3.8	4.6	5.5	6.1	7.2	7.9	7.9	8.1	9.1	9.1	8.6	7.5
Huron, S. Dak.	11.2	11.6	11.1	10.7	9.7	7.6	7.8	7.8	8.0	8.2	9.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
Idaho Falls, Idaho.	5.9	6.0	6.1	6.2	5.8	5.8	4.9	4.9	4.9	6.0	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Independence, Cal.	8.2	8.3	8.6	8.7	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
Indianapolis, Ind.	6.4	6.0	6.2	5.9	6.0	5.9	5.9	5.8	5.8	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Jacksonville, Fla.	6.6	6.9	6.7	6.8	6.4	7.0	7.8	8.1	8.5	9.7	10.2	10.1	10.8	12.1	13.0	13.8	10.7	10.6	10.6	9.2	8.3	7.6	7.4	7.4	6.3
Jupiter, Fla.	8.9	8.9	8.2	8.4	8.7	7.9	7.6	8.0	8.2	9.2	10.1	11.1	11.8	12.1	13.0	13.8	10.7	10.6	10.6	9.2	8.3	7.6	7.4	7.4	6.3
Kansas City, Mo.	8.1	7.5	7.5	7.6	7.8	7.9	7.8	7.8	8.0	8.2	9.2	10.1	10.8	12.1</											

TABLE VI.—Average wind movement, etc.—Continued.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Parkersburg, W. Va.	5.5	5.0	5.2	5.6	5.8	5.8	5.8	5.9	6.1	6.6	7.1	7.6	8.1	8.6	8.4	8.1	7.5	7.1	5.8	5.6	5.7	5.8	6.0	5.8	6.4
Pensacola, Fla.	9.2	8.7	8.8	8.2	9.5	9.6	9.1	8.9	9.7	10.4	10.1	10.3	11.0	10.9	11.0	10.9	11.0	10.6	8.8	8.0	7.4	8.0	8.6	9.3	9.5
Philadelphia, Pa.	11.4	11.4	12.0	12.2	11.1	10.7	11.3	11.8	13.0	13.6	13.6	13.6	13.8	14.6	14.3	14.0	13.8	12.6	12.2	12.4	12.3	11.8	11.4	11.2	12.5
Pierre, S. Dak.	6.4	6.1	6.4	6.4	7.1	7.8	7.8	8.4	10.2	10.5	11.9	11.8	12.1	12.3	12.7	12.9	12.6	11.9	10.5	9.6	8.6	7.9	8.3	8.2	8.5
Pittsburg, Pa.	7.0	7.4	7.6	7.2	7.3	7.6	8.2	8.0	9.0	8.6	9.3	9.4	9.6	9.9	9.9	9.8	9.5	8.6	8.7	8.0	7.6	7.1	7.1	7.1	8.3
Port Angeles, Wash.	3.7	3.7	4.2	4.4	4.4	4.2	3.8	4.1	4.2	4.6	4.6	4.9	5.4	5.6	6.2	7.0	7.3	6.8	6.4	6.0	4.7	4.2	4.0	4.2	5.0
Port Huron, Mich.	13.1	12.2	11.9	11.6	11.9	11.9	11.4	11.5	12.1	12.1	13.2	13.5	14.1	14.6	15.2	15.0	14.9	13.3	12.9	12.5	12.6	13.0	13.7	13.0	13.0
Portland, Me.	7.8	7.4	6.8	6.5	6.5	6.5	6.7	6.5	6.6	8.0	8.7	8.9	9.6	10.0	9.9	9.1	8.3	7.4	7.5	7.6	7.5	7.1	6.9	7.8	
Portland, Oreg.	6.6	7.4	7.6	8.2	8.4	8.5	8.3	8.2	8.8	8.6	8.5	8.5	9.8	9.3	9.0	9.3	10.2	9.9	9.0	8.6	7.8	7.7	7.2	6.7	8.4
Pueblo, Colo.	5.1	4.8	5.4	5.0	5.4	6.0	6.3	5.9	6.3	6.3	6.0	6.3	6.8	9.1	10.3	11.6	11.4	10.5	10.1	8.5	7.5	6.0	5.9	5.6	7.2
Raleigh, N. C.	6.8	6.8	7.3	7.4	7.4	7.1	7.1	7.7	8.2	9.6	9.8	9.9	10.3	10.0	10.6	10.1	9.0	7.0	6.5	6.9	7.0	6.5	7.0	6.8	8.0
Rapid City, S. Dak.	6.7	6.6	7.4	7.5	8.6	8.3	8.3	9.5	9.5	10.1	9.2	9.4	10.9	12.2	12.5	12.0	12.1	11.7	10.3	7.6	7.2	8.2	8.0	7.5	9.2
Red Bluff, Cal.	5.2	5.7	5.7	5.8	5.6	5.0	4.7	4.4	4.9	4.2	4.5	4.6	6.2	6.6	6.9	6.8	6.5	7.0	7.0	6.1	5.5	5.2	4.6	5.3	5.6
Rochester, N. Y.	12.3	12.1	11.6	11.7	11.7	11.2	11.8	12.2	12.9	13.8	14.4	14.9	16.0	16.0	16.0	15.1	13.8	12.6	12.1	12.1	12.4	13.0	12.6	12.4	13.1
Roseburg, Oreg.	1.7	1.6	1.2	1.6	1.6	2.1	1.8	2.1	1.9	2.0	2.3	2.0	2.3	2.3	3.3	3.5	3.9	4.6	4.1	3.9	3.2	2.4	2.1	1.6	2.5
Sacramento, Cal.	5.9	7.0	7.4	7.0	7.2	7.0	6.1	6.0	6.1	5.8	5.3	5.2	5.6	6.4	7.2	7.3	8.0	7.8	7.5	6.7	5.9	5.8	6.5	6.8	6.6
St. Louis, Mo.	11.0	11.0	11.0	11.1	10.8	10.5	10.1	10.1	11.4	11.8	12.3	12.1	12.2	12.3	12.4	13.1	13.1	13.1	12.9	12.0	11.1	11.4	11.3	11.3	11.6
St. Paul, Minn.	7.2	7.1	6.9	6.6	6.4	6.2	6.0	5.5	5.5	6.0	7.0	8.1	8.9	9.6	10.1	10.1	10.4	10.0	9.1	8.1	7.7	7.8	7.3	7.3	7.7
St. Vincent, Minn.	7.6	8.3	7.8	7.2	7.1	7.2	7.6	7.8	7.9	8.4	9.4	10.6	11.2	12.1	12.7	12.5	12.2	11.1	9.9	9.6	9.4	9.4	8.6	8.6	9.3
Salt Lake City, Utah.	3.5	3.7	3.5	4.0	3.5	4.3	3.6	3.4	3.5	3.5	3.6	4.1	4.2	5.1	5.5	6.2	6.4	6.4	6.0	5.5	4.4	3.9	3.7	3.9	4.4
San Antonio, Tex.	7.3	7.2	7.4	6.5	7.3	7.2	7.1	7.1	7.0	8.1	9.4	10.2	10.1	10.5	10.2	10.9	10.8	10.3	9.9	9.5	8.5	8.3	8.3	7.8	8.6
San Diego, Cal.	3.9	3.9	3.6	3.6	3.6	3.5	3.4	3.9	3.9	4.0	3.8	3.2	4.3	6.0	7.1	8.1	8.8	8.6	8.0	7.2	5.9	4.3	3.6	3.6	5.0
Sandusky, Ohio.	10.3	10.6	10.5	11.3	11.2	10.0	9.4	9.2	9.5	10.5	10.8	10.4	11.4	11.6	11.5	11.7	11.1	11.0	9.9	10.4	10.6	10.5	10.2	9.9	10.6
San Francisco, Cal.	5.6	5.5	4.9	4.6	4.7	4.5	5.2	5.2	5.2	5.3	5.5	6.2	6.2	6.9	6.7	7.2	9.4	11.2	11.8	12.5	11.2	9.6	8.4	7.1	7.1
San Luis Obispo, Cal.	3.6	4.1	4.1	3.5	3.0	3.5	3.3	3.3	3.1	2.9	3.2	4.0	4.6	5.2	5.9	7.1	8.2	8.9	8.5	7.6	6.7	5.1	4.5	4.2	4.9
Santa Fe, N. Mex.	6.3	6.4	6.6	7.0	7.1	6.8	7.2	6.9	6.9	7.1	8.5	9.2	9.7	10.5	10.8	9.5	9.0	8.0	7.6	6.2	5.0	6.0	6.3	6.2	7.5
Sault Ste. Marie, Mich.	7.0	7.4	7.4	7.0	6.8	7.2	6.0	6.1	5.9	6.1	7.3	9.5	10.3	11.4	11.8	11.9	11.4	11.6	10.8	9.6	9.2	8.8	8.1	7.0	8.6
Savannah, Ga.	8.7	8.7	8.8	8.9	9.5	9.2	8.9	9.0	9.3	9.7	10.1	11.1	11.5	12.0	11.8	12.1	11.8	10.6	9.2	8.5	8.7	8.1	8.0	8.1	9.7
Seattle, Wash.	4.9	4.6	4.6	4.8	5.1	5.4	5.0	5.0	5.2	4.8	5.1	5.3	5.7	5.4	5.6	6.0	6.5	6.5	6.4	5.9	4.9	5.4	4.8	4.9	5.8
Shreveport, La.	7.0	7.1	6.7	6.6	7.0	7.2	6.6	6.6	7.1	7.6	8.5	9.1	9.2	9.0	8.9	9.2	9.5	8.9	8.2	7.4	7.3	7.6	8.1	7.9	7.8
Sioux City, Iowa.	9.5	9.4	9.5	8.6	8.5	9.1	8.4	8.1	8.5	9.4	12.0	12.6	13.9	15.2	16.0	16.7	16.6	15.1	12.9	11.5	10.8	10.8	10.8	10.4	11.4
Spokane, Wash.	4.6	4.7	5.2	5.3	4.7	4.1	4.2	4.8	4.9	5.8	6.0	6.4	7.0	7.2	7.2	7.5	7.5	7.1	6.5	6.5	5.8	5.3	5.0	5.1	5.8
Springfield, Ill.	9.3	9.8	9.4	9.7	9.4	8.9	9.1	9.2	9.5	10.5	11.4	10.9	11.2	11.8	12.2	12.4	12.0	10.5	9.4	9.0	9.2	9.0	8.9	9.4	10.1
Springfield, Mo.	9.8	9.5	9.2	8.9	9.4	9.1	8.9	8.9	8.1	9.2	9.5	10.0	11.5	11.9	11.7	11.3	11.3	10.6	10.4	9.3	9.3	9.4	9.5	10.0	9.9
Tampa, Fla.	5.5	5.7	6.0	6.3	6.1	6.4	6.4	6.2	6.9	7.0	7.7	8.7	9.3	9.9	10.0	10.0	9.6	8.6	7.6	7.0	6.0	6.2	5.9	5.9	7.3
Tatoosh Island, Wash.	16.2	16.0	15.1	16.3	17.4	17.1	17.3	18.7	17.8	18.0	17.5	17.7	17.4	18.0	18.4	19.5	18.9	19.5	18.2	19.0	18.2	17.8	17.8	17.2	17.7
Titusville, Fla.	12.0	11.4	11.0	11.2	11.4	11.8	12.2	11.2	12.0	14.9	15.8	15.5	16.0	15.9	16.7	17.1	15.9	14.6	12.6	12.8	12.0	11.6	11.5	11.4	13.2
Toledo, Ohio.	11.6	10.8	10.3	9.8	10.0	10.0	9.7	9.9	10.2	11.4	12.3	12.3	13.4	13.5	14.0	14.3	14.1	13.6	12.2	10.6	11.0	11.5	11.4	11.0	11.6
Tucson, Ariz.	4.0	4.4	4.3	4.5	4.4	4.8	4.7	5.0	4.3	4.6	4.8	5.0	5.4	5.2	5.8	6.7	7.3	7.7	8.2	7.5	5.6	4.9	5.1	4.7	5.4
Vicksburg, Miss.	7.2	8.0	8.0	8.0	7.5	7.8	8.0	8.1	7.9	8.1	8.5	8.5	8.6	8.7	8.2	9.0	8.8	8.2	7.1	6.4	6.6	7.4	7.8	7.5	7.9
Vineyard Haven, Mass.	9.8	10.4	10.5	10.6	10.4	10.1	10.3	10.6	11.4	11.5	11.5	11.6	12.1	12.4	12.1	11.9	11.4	10.4	10.6	10.9	11.0	11.1	10.7	10.3	11.0
Walla Walla, Wash.	5.2	5.2	6.0	5.1	5.4	6.0	5.2	5.8	5.7	5.8	5.4	5.4	6.2	7.0	7.8	7.5	7.3	7.2	6.5	6.0	5.1	5.0	5.0	4.6	5.9
Washington, D. C.	7.5	6.8	6.5	6.6	7.6	8.0	8.4	8.2	9.1	10.4	12.1	12.5	12.9	13.4	12.9	12.1	11.0	9.5	7.8	7.6	7.6	7.9	7.9	8.2	9.3
Wichita, Kans.	8.0	8.3	7.8	8.0	7.6	7.7	7.6	7.4	7.4	8.5	9.9	10.6	11.4	11.5	11.8	11.5	11.5	11.8	10.7	9.4	8.8	8.8	8.5	8.3	9.3
Williston, N. Dak.	7.5	8.4	8.6	9.1	8.1	7.4	7.5	8.5	8.0	7.9	8.1	8.6	10.1	11.3	11.8	11.8	11.6	10.5	8.9	7.6	7.9	7.3	7.5	8.0	8.8
Wilmington, N. C.	8.2	7.8	7.9	8.6	8.2	8.2	8.8	8.7	9.2	10.4	10.5	11.1	11.4	11.6	12.1	12.1	11.6	10.5	8.9	8.7	8.3	8.6	7.9	8.1	9.5
Winnemucca, Nev.	7.9	9.1	9.0	8.9	8.9	9.6	9.7	10.3	10.4	10.0	9.9	9.9	10.4	9.7	9.1	8.8	8.7	9.3	9.5	8.5	7.7	8.5	8.5	8.8	9.2
Woods Holl, Mass.	16.9	17.6	17.4	17.2	17.1	16.9	17.3	17.9	17.5	15.5	17.2	17.8	18.4	19.5	19.5	19.1	19.4	19.1	18.8	17.9	17.0	17.5	16.9	17.3	17.7
Yuma, Ariz.	4.9	4.8	4.7	5.1	5.0	5.8	4.9	5.6	5.6	5.2	5.5	7.8	10.9	11.6	12.0	11.0	10.8	11.2	10.9	9.7	7.4	7.3	7.2	5.6	7.5

TABLE VII.—Heights of rivers above low-water mark, February, 1895.

Stations.	Distance to mouth of river.	Danger-point on gauge.	Highest water.		Lowest water.		Me'n stage.	Monthly range.	Stations.	Distance to mouth of river.	Danger-point on gauge.	Highest water.		Lowest water.		Me'n stage.	Monthly range.
			Height.	Date.	Height.	Date.						Height.	Date.	Height.	Date.		
<i>Mississippi River.</i>																	
St. Paul, Minn.†	2,087	14.0							Scioto River.								
La Crosse, Wis.†	1,867	10.0							Circleville, Ohio†	65	13.0						
Dubuque, Iowa†	1,759	15.0							Big Sandy River.								
Davenport, Iowa†	1,653	15.0							Louis, Ky.	26		11.2	28	4.0	6	6.6	7.2
Keokuk, Iowa†	1,523	14.0							Wabash River.								
Hannibal, Mo.†	1,462	17.0							Mount Carmel, Ill.†	50	15.0						
St. Louis, Mo.†	1,321	30.0							Cumberland River.								
Memphis, Tenn.	910	33.0	17.8	1	1.6	21-23	6.3	16.2	Burnside, Ky.‡	404	50.0	9.0	28	3.0	9-10	5.7	6.0
Helena, Ark.	834	37.0	25.9	1	2.9	22-23	10.4	23.0	Nashville, Tenn.	145	40.0	12.0	28	4.7	19	7.6	7.8
Arkansas City, Ark.	792	42.0	28.6	1	3.8	25-27	13.1	24.8	Tennessee River.								
Greenville, Miss.	692	40.0	24.6	1	3.3	25-26	11.1	31.3	Knoxville, Tenn.	640	29.0	3.5	7	2.0	14-16	2.6	1.5
Vicksburg, Miss.	541	41.0	28.5	1	1.4	27-28	13.4	27.1	Chattanooga, Tenn.	455	33.0	7.6	1.5	3.3	12	5.6	4.3
New Orleans, La.	108	13.0	9.0	2,3	2.8	26-28	5.9	6.2	Johnsonville, Tenn.	94	21.0						
<i>Illinois River.</i>																	
Beardstown, Ill.†	76	12.0							Arkansas River.								
<i>Missouri River.</i>																	
Pierre, S. Dak.†	1,132	13.0							Fort Smith, Ark.†	351	22.0	1.1	17	0.6	4-6	0.8	0.5
Sioux City, Iowa†	802	18.7							Little Rock, Ark.‡	176	23.0	4.5	1	3.0	18-22	3.5	1.5
Omaha, Nebr.†	667	18.0							Red River.								
Kansas City, Mo.†	386	21.0							Shreveport, La.	449	29.2	1.3	2	-3.5	28	-1.2	4.8
<i>Ohio River.</i>																	
Parkersburg, W. Va.†	786	28.0							James River.								
Catlettsburg, Ky.†	632	50.0	12.1	1	5.7	9	9.4	6.4	Lynchburg, Va.	251	18.0	2.9	28	0.1	12-16	0.9	2.8
Cincinnati, Ohio†	500	45.0							Congaree River.								
Louisville, Ky.†	368	24.0							Columbia, S. C.		15.0	6.2	1	1.4	10	2.8	4.8
Evansville, Ind.†	194	30.0							Savannah River.								
Paducah, Ky.	47	40.0	21.1	1	5.5	17	9.5	15.6	Augusta, Ga.	140	32.6	17.2	1	9.0	10, 11, 15, 28	11.4	8.2
Calro, Ill.	1,140	40.0	21.6	1	5.7	17-19	10.4	13.9	Alabama River.								
<i>Monongahela River.</i>																	
Pittsburg, Pa.	966†	22.0	3.7	1	1.8	9	2.6	1.9	Montgomery, Ala.	215	48.0	19.0	4	6.9	25	10.8	12.1
<i>Great Kanawha River.</i>																	
Charleston, W. Va.	61	30.0	6.0	28	1.8	10-12	3.4	4.2	Willamette River.								
									Portland, Oreg.		15.0	4.9	27	1.9	6, 7	3.4	3.0
									Sacramento River.								
									Red Bluff, Cal.		20.0	14.0	24	4.4	5-7	7.3	9.6
									Sacramento, Cal.		28.0	24.0	1	19.8	11	21.4	4.2

TABLE VIII.—Temperature of the wet-bulb thermometer, February, 1895.

Stations.	Local time faster or slower than 75th meridian time.	8 A. M.			8 P. M.			Stations.	Local time faster or slower than 75th meridian time.	8 A. M.			8 P. M.		
		Max.	Min.	Mean.	Max.	Min.	Mean.			Max.	Min.	Mean.	Max.	Min.	Mean.
New England.															
Eastport, Me.	32 F.	34	-11	17	33	-9	20	Up. Lake Region—Con.	A. m.	0	0	0	0	0	0
Portland, Me.	19 F.	36	-10	14	36	-8	20	Milwaukee, Wis.	51 S.	44	-16	10	47	-9	16
Northfield, Vt.	9 F.	30	-16	8	37	-13	14	Green Bay, Wis.	52 S.	40	-24	6	45	-13	14
Boston, Mass.	16 F.	32	-6	18	38	0	23	Duluth, Minn.	1 08 S.	37	-27	6	41	-17	14
Nantucket, Mass.	20 F.	36	0	23	34	5	25	North Dakota.							
Woods Holl, Mass.	17 F.	34	-1	21	36	2	24	Moorhead, Minn.	1 27 S.	36	-34	0	46	-24	8
Block Island, R. I.	14 F.	34	-1	21	36	2	24	St. Vincent, Minn.	1 29 S.	34	-40	-2	38	-30	4
New Haven, Conn.	8 F.	33	-6	16	40	-1	21	Bismarck, N. Dak.	1 42 S.	38	-36	3	42	-22	11
New London, Conn.	12 F.	33	-4	18	36	-2	22	Williston, N. Dak.	1 54 S.	34	-38	3	40	-26	11
Middle Atlantic States.															
Albany, N. Y.	5 F.	33	-9	14	39	-4	20	Upper Mississippi Valley.							
New York, N. Y.	4 F.	38	-3	19	45	4	24	St. Paul, Minn.	1 12 S.	37	-26	4	41	-15	13
Harrisburg, Pa.	7 S.	41	-3	18	45	-4	23	La Crosse, Wis.	1 05 S.	40	-22	4	42	-13	16
Philadelphia, Pa.	0	40	-2	20	48	5	24	Davenport, Iowa.	1 02 S.	44	-20	8	50	-12	18
Baltimore, Md.	6 S.	44	0	19	51	5	24	Des Moines, Iowa.	1 14 S.	43	-16	11	50	-10	21
Washington, D. C.	8 S.	41	0	19	48	7	24	Keokuk, Iowa.	1 06 S.	47	-20	11	54	-10	20
Lynchburg, Va.	16 S.	45	3	21	51	5	28	Calro, Ill.	56 S.	50	-9	20	65	2	29
Norfolk, Va.	5 S.	43	3	25	52	10	29	Springfield, Ill.	58 S.	46	-18	12	53	-7	20
South Atlantic States.															
Charlotte, N. C.	23 S.	42	1	25	50	8	31	Hannibal, Mo.	1 05 S.	52	-16	13	56	-9	22
Hatteras, N. C.	2 S.	46	12	32	49	18	34	St. Louis, Mo.	1 01 S.	51	-12	18	56	-4	25
Kittyhawk, N. C.	3 S.	41	6	29	50	14	31	Missouri Valley.							
Raleigh, N. C.	14 S.	43	4	24	50	11	30	Columbia, Mo.	1 09 S.	54	-12	18	57	-4	27
Wilmington, N. C.	12 S.	44	9	30	52	16	34	Kansas City, Mo.	1 18 S.	48	-15	18	53	-7	25
Charleston, S. C.	20 S.	52	10	34	51	16	37	Springfield, Mo.	1 13 S.	48	-15	18	53	-7	25
Augusta, Ga.	27 S.	45	7	30	52	13	35	Omaha, Nebr.	1 24 S.	41	-18	12	53	-10	22
Savannah, Ga.	24 S.	52	11	35	53	18	39	Sioux City, Iowa.	1 36 S.	39	-22	10	50	-12	18
Jacksonville, Fla.	26 S.	61	13	40	56	23	43	Pierre, S. Dak.	1 41 S.	46	-26	10	46	-18	18
Florida Peninsula.															
Jupiter, Fla.	30 S.	70	26	51	70	30	55	Huron, S. Dak.	1 32 S.	39	-31	6	47	-20	14
Key West, Fla.	37 S.	73	45	58	73	45	59	Northern Slope.							
Tampa, Fla.	30 S.	69	21	47	68	30	50	Havre, Mont.	2 19 S.	36	-32	5	41	-24	13
Titusville, Fla.	23 S.	69	17	46	67	27	51	Miles City, Mont.	2 08 S.	37	-31	5	44	-19	15
Eastern Gulf States.															
Atlanta, Ga.	37 S.	45	0	27	53	5	32	Helena, Mont.	2 28 S.	38	-16	13	44	-10	20
Pensacola, Fla.	49 S.	56	11	38	60	15	42	Rapid City, S. Dak.	1 53 S.	42	-23	11	43	-14	18
Mobile, Ala.	52 S.	52	10	36	59	15	41	Cheyenne, Wyo.	1 59 S.	34	-19	14	38	-12	20
Montgomery, Ala.	45 S.	45	8	32	56	10	38	Lander, Wyo.	2 15 S.	34	-27	7	40	-8	20
Meridian, Miss.	55 S.	50	5	30	58	10	37	North Platte, Nebr.	1 43 S.	36	-23	10	44	-16	20
Vicksburg, Miss.	1 08 S.	52	5	33	63	14	39	Middle Slope.							
New Orleans, La.	1 00 S.	55	14	38	62	18	43	Denver, Colo.	2 00 S.	42	-12	17	43	-4	24
Western Gulf States.															
Shreveport, La.	1 14 S.	56	3	32	61	10	39	Pueblo, Colo.	1 58 S.	38	-20	14	42	-3	25
Fort Smith, Ark.	1 17 S.	52	-4	25	59	4	34	Concordia, Kans.	1 31 S.	43	-17	16	50	-10	23
Little Rock, Ark.	1 08 S.	51	-1	26	57	5	34	Dodge City, Kans.	1 40 S.	51	-14	17	53	-3	24
Corpus Christi, Tex.	1 30 S.	63	13	41	66	22	47	Wichita, Kans.	1 29 S.	55	-12	19	56	-5	27
Galveston, Tex.	1 19 S.	57	12	38	58	18	42	Oklahoma, Okla.	1 30 S.	55	-7	21	57	2	30
Palestine, Tex.	1 22 S.	58	3	33	61	11	39	Southern Slope.							
San Antonio, Tex.	1 34 S.	63	10	36	62	18	42	Abilene, Tex.	1 39 S.	57	-2	25	59	7	32
Ohio Valley and Tenn.															
Chattanooga, Tenn.	41 S.	47	-3	25	56	5	31	Amarillo, Tex.	1 47 S.	50	-7	19	53	2	26
Knoxville, Tenn.	36 S.	40	-6	22	54	3	29	Southern Plateau.							
Memphis, Tenn.	1 00 S.	50	-3	26	56	7	32	El Paso, Tex.	2 06 S.	44	-7	28	49	17	38
Nashville, Tenn.	47 S.	47	-6	22	56	4	30	Santa Fe, N. Mex.	2 04 S.	34	-8	18	44	0	25
Lexington, Ky.	38 S.	46	-11	16	52	-2	23	Tucson, Ariz.	2 24 S.	47	26	35	56	31	46
Louisville, Ky.	43 S.	51	-10	18	55	0	26	Yuma, Ariz.	2 38 S.	54	34	42	58	42	51
Indianapolis, Ind.	44 S.	50	-14	15	54	-3	22	Independence, Cal.	2 53 S.	41	26	33	46	37	41
Cincinnati, Ohio.	38 S.	49	-11	17	54	-1	24	Middle Plateau.							
Columbus, Ohio.	32 S.	45	-8	14	52	-4	22	Carson City, Nev.	2 59 S.	41	11	26	44	22	36
Pittsburg, Pa.	30 S.	46	-3	18	54	-2	22	Winnemucca, Nev.	2 51 S.	35	4	20	43	15	32
Parkersburg, W. Va.	36 S.	45	-8	18	56	-2	25	Salt Lake City, Utah.	2 27 S.	36	2	23	41	14	29
Lower Lake Region.															
Buffalo, N. Y.	15 S.	37	-13	14	36	-6	16	Northern Plateau.							
Oswego, N. Y.	6 S.	37	-10	16	40	-6	19	Baker City, Oreg.	2 51 S.	37	0	22	40	15	29
Rochester, N. Y.	11 S.	39	-8	15	41	-4	18	Idaho Falls, Idaho.	2 28 S.	35	-20	10	37	1	23
Erie, Pa.	20 S.	43	-8	15	44	-6	17	Spokane, Wash.	2 49 S.	40	11	29	46	24	36
Cleveland, Ohio.	27 S.	46	-5	15	50	-2	20	Walla Walla, Wash.	2 53 S.	47	18	35	53	28	42
Sandusky, Ohio.	30 S.	46	-5	15	51	-2	20	N. Pac. Coast Region.							
Toledo, Ohio.	34 S.	46	-7	14	51	-3	20	Fort Canby, Wash.	3 16 S.	47	30	41	48	32	43
Detroit, Mich.	32 S.	42	-8	12	48	-3	18	Port Angeles, Wash.	3 14 S.	49	26	38	50	33	43
Upper Lake Region.															
Alpena, Mich.	34 S.	37	-21	9	38	-12	16	Seattle, Wash.	3 00 S.	49	28	40	52	32	43
Grand Haven, Mich.	45 S.	39	-6	16	40	-4	19	Tatoosh Island, Wash.	3 19 S.	48	37	42	50	38	43
Marquette, Mich.	49 S.	38	-16	9	43	-15	14	Portland, Oreg.	3 11 S.	48	27	38	52	30	43
Fort Haron, Mich.	30 S.	39	-16	12	44	-8	18	Roseburg, Oreg.	3 13 S.	46	26	37	56	36	47
Sault Ste. Marie, Mich.	37 S.	34	-28	5	37	-20	13	Mid. Pac. Coast Region.							
Chicago, Ill.	50 S.	47	-13	12	52	-4	19	Eureka, Cal.	3 17 S.	52	39	45	54	46	50
								Red Bluff, Cal.	3 09 S.	50	34	43	58	42	52
								Sacramento, Cal.	3 06 S.	55	40	46	57	47	52
								San Francisco, Cal.	3 10 S.	54	43	48	57	47	51
								S. Pac. Coast Region.							
								Fresno, Cal.	2 59 S.	54	36	44	57	48	53
								Los Angeles, Cal.	2 53 S.	52	36	45	59	48	53
								San Diego, Cal.	2 49 S.	53	40	47	57	48	53
								San Luis Obispo, Cal.	3 03 S.	56	35	45	58	47	52

TABLE IX.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during February, 1895.

Stations.	Component direction from—				Resultant.		Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.
<i>New England.</i>							<i>Upper Lake Region—Cont'd.</i>						
Eastport, Me.	22	11	6	28	n. 64 w.	25	Milwaukee, Wis.	9	10	8	45	s. 88 w.	40
Portland, Me.	12	13	5	36	s. 88 w.	31	Green Bay, Wis.	7	31	1	24	s. 44 w.	33
Northfield, Vt.	24	24	6	14	w. . . .	8	Duluth, Minn.	23	16	4	30	n. 75 w.	27
Boston, Mass.	13	9	1	42	n. 84 w.	41	<i>North Dakota.</i>						
Nantucket, Mass.	36	2	13	13	n. . . .	34	Moorhead, Minn.	34	15	4	26	n. 68 w.	24
Woods Holl, Mass.	4	10	1	18	s. 71 w.	18	St. Vincent, Minn.	35	15	3	30	n. 60 w.	30
Block Island, R. I.	26	4	6	38	n. 56 w.	39	Bismarck, N. Dak.	29	8	8	22	n. 34 w.	25
New Haven, Conn.	22	10	0	32	n. 69 w.	34	Williston, N. Dak.	17	16	8	31	n. 88 w.	23
New London, Conn.	26	6	1	37	n. 61 w.	40	<i>Upper Mississippi Valley.</i>						
<i>Middle Atlantic States.</i>							St. Paul, Minn.	10	30	7	32	s. 68 w.	27
Albany, N. Y.	30	18	2	25	n. 85 w.	23	La Crosse, Wis.	14	27	2	19	s. 52 w.	22
New York, N. Y.	30	7	4	34	n. 53 w.	38	Davenport, Iowa	12	11	5	38	n. 88 w.	33
Harrisburg, Pa.	15	9	3	39	n. 80 w.	36	Des Moines, Iowa	26	8	6	27	n. 49 w.	28
Philadelphia, Pa.	23	7	2	35	n. 64 w.	37	Keokuk, Iowa	18	16	5	31	n. 86 w.	26
Baltimore, Md.	22	8	4	34	n. 65 w.	33	Cairo, Ill.	27	13	9	21	n. 41 w.	18
Washington, D. C.	25	12	2	30	n. 65 w.	31	Springfield, Ill.	19	17	5	30	n. 85 w.	25
Lynchburg, Va.	19	10	10	22	n. 58 w.	24	Hannibal, Mo.	14	15	6	31	s. 88 w.	25
Norfolk, Va.	31	6	7	25	n. 36 w.	31	St. Louis, Mo.	18	16	10	24	n. 82 w.	14
<i>South Atlantic States.</i>							<i>Missouri Valley.</i>						
Charlotte, N. C.	14	16	20	21	s. 27 w.	2	Columbia, Mo.	8	7	6	16	n. 84 w.	10
Hatteras, N. C.	35	7	9	21	n. 25 w.	29	Kansas City, Mo.	22	19	12	20	n. 69 w.	8
Kittyhawk, N. C.	30	7	14	22	n. 19 w.	24	Springfield, Mo.	22	19	15	17	n. 84 w.	4
Raleigh, N. C.	30	13	5	25	n. 50 w.	26	Omaha, Nebr.	24	13	7	26	n. 60 w.	22
Wilmington, N. C.	28	7	12	26	n. 34 w.	25	Sioux City, Iowa	27	15	9	21	n. 45 w.	17
Charleston, S. C.	23	7	11	25	n. 41 w.	21	Pierre, S. Dak.	20	11	15	21	n. 34 w.	11
Augusta, Ga.	19	5	12	28	n. 49 w.	21	Huron, S. Dak.	20	15	8	26	n. 70 w.	19
Savannah, Ga.	25	10	11	25	n. 43 w.	20	<i>Northern Slope.</i>						
Jacksonville, Fla.	24	10	9	24	n. 47 w.	20	Havre, Mont.	19	12	9	31	n. 72 w.	23
<i>Florida Peninsula.</i>							Miles City, Mont.	15	21	11	22	s. 61 w.	12
Jupiter, Fla.	24	12	7	28	n. 60 w.	24	Helena, Mont.	10	17	2	41	s. 80 w.	40
Key West, Fla.	27	8	26	7	n. 45 e.	27	Rapid City, S. Dak.	21	10	14	24	n. 42 w.	15
Tampa, Fla.	28	6	15	16	n. 3 w.	22	Cheyenne, Wyo.	25	8	2	32	n. 60 w.	34
Titusville, Fla.	22	7	11	27	n. 47 w.	22	Lander, Wyo.	14	24	11	22	s. 48 w.	15
<i>Eastern Gulf States.</i>							North Platte, Nebr.	18	12	6	33	n. 78 w.	28
Atlanta, Ga.	22	8	13	28	n. 47 w.	20	<i>Middle Slope.</i>						
Pensacola, Fla.	22	11	15	14	n. 3 e.	18	Denver, Colo.	22	15	13	21	n. 49 w.	11
Mobile, Ala.	22	16	6	16	n. 38 w.	16	Pueblo, Colo.	25	9	16	21	n. 17 w.	17
Montgomery, Ala.	25	7	12	23	n. 31 w.	21	Concordia, Kans.	27	16	7	14	n. 32 w.	13
Meridian, Miss.	29	10	16	16	n. . . .	19	Dodge City, Kans.	29	13	13	10	n. 11 e.	16
Vicksburg, Miss.	23	13	23	12	n. 48 e.	15	Wichita, Kans.	27	22	6	8	n. 22 w.	5
New Orleans, La.	23	11	21	14	n. 30 e.	14	Oklahoma, Okla.	24	20	13	10	n. 37 e.	5
<i>Western Gulf States.</i>							<i>Southern Slope.</i>						
Shreveport, La.	19	18	30	13	n. 82 e.	7	Abilene, Tex.	26	16	11	14	n. 17 w.	10
Fort Smith, Ark.	15	8	23	17	n. 41 e.	9	Amarillo, Tex.	24	18	7	11	n. 34 w.	7
Little Rock, Ark.	25	11	18	15	n. 12 e.	14	<i>Southern Plateau.</i>						
Corpus Christi, Tex.	28	9	21	13	n. 23 e.	21	El Paso, Tex.	22	6	19	23	n. 14 w.	16
Galveston, Tex.	31	11	23	11	n. 50 e.	16	Santa Fe, N. Mex.	24	20	16	14	n. 27 e.	4
Palestine, Tex.	30	22	15	11	s. 63 e.	4	Tucson, Ariz.	16	20	13	20	s. 60 w.	8
San Antonio, Tex.	30	8	18	10	n. 20 e.	23	Yuma, Ariz.	26	6	9	15	n. 11 w.	31
<i>Ohio Valley and Tennessee.</i>							Independence, Cal.	28	11	5	27	n. 52 w.	28
Chattanooga, Tenn.	21	4	16	20	n. 13 w.	18	<i>Middle Plateau.</i>						
Knoxville, Tenn.	20	10	16	25	n. 42 w.	14	Carson City, Nev.	19	16	13	18	n. 59 w.	6
Memphis, Tenn.	24	5	19	16	n. 9 e.	19	Winnemucca, Nev.	25	7	26	10	n. 42 e.	24
Nashville, Tenn.	26	8	8	27	n. 47 w.	26	Salt Lake City, Utah.	10	21	11	25	s. 52 w.	18
Lexington, Ky.	16	18	6	22	s. 82 w.	14	<i>Northern Plateau.</i>						
Louisville, Ky.	18	21	6	30	s. 78 w.	14	Baker City, Oreg.	9	32	16	10	s. 15 e.	24
Indianapolis, Ind.	18	12	6	32	n. 77 w.	27	Idaho Falls, Idaho	28	12	1	32	n. 68 w.	35
Cincinnati, Ohio	17	16	8	38	n. 87 w.	20	Spokane, Wash.	12	30	21	13	s. 45 e.	11
Columbus, Ohio	11	21	5	26	s. 65 w.	23	Walla Walla, Wash.	9	34	7	14	s. 16 w.	26
Pittsburg, Pa.	15	9	5	35	n. 79 w.	31	<i>North Pacific Coast Region.</i>						
Parkersburg, W. Va.	8	26	11	22	s. 31 w.	21	Fort Canby, Wash.	5	22	30	9	s. 51 e.	27
<i>Lower Lake Region.</i>							Port Angeles, Wash.	4	28	16	17	s. 2 w.	34
Buffalo, N. Y.	8	14	2	45	s. 82 w.	43	Seattle, Wash.	9	32	19	6	s. 29 e.	36
Oswego, N. Y.	16	21	4	31	s. 80 w.	28	Tatoosh Island, Wash.	1	15	30	16	s. 45 e.	30
Rochester, N. Y.	3	31	2	39	s. 53 w.	46	Portland, Oreg.	10	30	14	10	s. 11 e.	30
Erie, Pa.	9	30	1	36	s. 73 w.	37	Roseburg, Oreg.	18	13	17	22	n. 45 w.	7
Cleveland, Ohio	7	23	7	33	s. 58 w.	30	<i>Middle Pacific Coast Region.</i>						
Sandusky, Ohio	14	11	4	39	n. 85 w.	35	Eureka, Cal.	17	17	19	19	0	0
Toledo, Ohio	15	10	2	42	n. 83 w.	40	Red Bluff, Cal.	28	14	6	23	n. 51 w.	22
Detroit, Mich.	18	14	2	38	n. 84 w.	36	Sacramento, Cal.	24	18	16	12	n. 34 e.	7
<i>Upper Lake Region.</i>							San Francisco, Cal.	14	14	7	35	w. . . .	28
Alpena, Mich.	16	13	1	37	n. 85 w.	36	<i>South Pacific Coast Region.</i>						
Grand Haven, Mich.	21	12	9	37	n. 63 w.	20	Fresno, Cal.	16	13	26	17	n. 72 e.	10
Marquette, Mich.	24	8	4	35	n. 63 w.	35	Los Angeles, Cal.	22	5	18	23	n. 16 w.	18
Port Huron, Mich.	10	26	1	32	s. 63 w.	35	San Diego, Cal.	26	9	6	27	n. 51 w.	27
Sault Ste. Marie, Mich.	21	14	8	32	n. 74 w.	25	San Luis Obispo, Cal.	25	8	11	21	n. 30 w.	20
Chicago, Ill.	15	10	3	39	n. 82 w.	36							

TABLE X.—*Thunderstorms and auroras, February, 1895.*

[illegible]

TABLE XI.—Hourly sunshine as deduced from sunshine recorders, February, 1895.

Stations.	Instrument.	Percentages for each hour of local mean time ending with the respective hour.																Monthly summary.			
		A. M.								P. M.								Instrumental record.			
		5	6	7	8	9	10	11	Noon	1	2	3	4	5	6	7	8	Actual.	Possible.	Per cent of possible.	Personal estimate.
Atlanta, Ga.....	T.			54	48	55	61	69	71	71	69	65	55	56	44			187.1	308.0	61	53
Baltimore, Md.....	T.			44	47	63	88	92	94	98	98	92	80	62	58			236.6	300.4	79	60
Bismarck, N. Dak.....	P.			29	24	36	45	51	52	56	58	42	39	39	42			128.8	287.6	45	47
Boston, Mass.....	T.			53	68	79	81	85	87	90	75	72	67	56	48			218.0	296.3	74	51
Buffalo, N. Y.....	T.			19	17	25	39	50	66	65	59	61	50	36	30			138.1	295.2	47	39
Chicago, Ill.....	T.			55	46	55	66	77	78	81	82	73	60	56	66			200.3	297.5	67	59
Cincinnati, Ohio.....	P.			43	58	64	60	68	62	67	66	65	67	66	65			198.5	300.8	64	65
Cleveland, Ohio.....	P.			33	28	30	41	51	50	50	58	59	55	42	37			134.9	297.4	45	47
Columbus, Ohio.....	T.			36	26	31	53	63	74	78	76	70	53	45	47			169.4	300.7	56	50
Denver, Colo.....	P.			31	42	58	62	70	72	69	78	71	61	50	40			185.4	299.7	62	51
Des Moines, Iowa.....	T.			52	55	53	62	65	71	82	76	56	51	54	61			185.3	297.5	63	59
Detroit, Mich.....	T.			50	49	49	76	84	87	92	89	76	60	45	42			212.4	295.0	72	54
Dodge City, Kans.....	P.			31	49	57	56	62	65	56	60	62	64	61	46			175.7	292.5	58	50
Eastport, Me.....	P.			57	41	45	53	50	56	45	51	50	49	42	39			140.3	292.3	48	42
Galveston, Tex.....	P.			44	54	61	58	54	42	45	53	42	38	35	30			99.3	213.3	47	52
Helena, Mont.....	P.			24	33	39	47	56	64	74	66	60	59	64	77			165.1	287.8	57	54
Kansas City, Mo.....	P.			45	49	57	55	60	52	55	51	51	36	29	27			145.6	300.7	48	45
Key West, Fla.....	T.			51	50	58	67	71	77	78	80	76	65	63	51	30		211.0	317.1	67	49
Little Rock, Ark.....	T.			32	32	46	60	63	76	74	64	56	46	39	37			164.9	305.8	54	41
Louisville, Ky.....	T.			44	43	45	55	62	66	61	56	59	56	61	66			171.9	302.2	57	51
Marquette, Mich.....	P.			24	20	54	73	85	86	91	85	75	61	43	31			191.7	298.0	67	53
Memphis, Tenn.....	T.			57	50	55	57	56	52	54	60	58	50	50	52			165.7	305.7	54	53
New Haven, Conn.....	T.			47	55	65	76	84	81	84	86	89	76	47	34			214.1	297.9	72	59
New Orleans, La.....	T.			12	12	26	41	53	60	64	53	53	47	32	11			126.8	312.7	41	40
New York, N. Y.....	T.			50	50	66	82	90	94	95	92	90	88	70	43			236.8	296.2	79	51
Norfolk, Va.....	T.			52	45	68	76	75	77	81	82	80	74	65	60			216.1	303.8	71	70
Philadelphia, Pa.....	T.			41	48	59	60	76	76	78	77	71	62	58	54			196.7	299.7	66	53
Portland, Me.....	T.			4	22	59	70	79	83	78	75	77	62	52	35			190.2	295.0	64	46
Portland, Oreg.....	P.			5	6	10	26	25	30	27	33	40	36	34	35			76.8	292.1	26	37
Do.....	T.			5	6	10	26	40	49	52	53	52	46	42	38			110.4	292.1	38	37
Rochester, N. Y.....	T.			19	18	22	39	52	71	77	71	53	44	30	32			138.8	295.4	47	42
St. Louis, Mo.....	T.			34	40	55	82	87	91	93	88	82	74	64	58			222.8	301.4	74	58
Salt Lake City, Utah.....	P.			25	25	40	49	64	69	70	69	64	54	45	44			161.1	296.2	54	37
Do.....	T.			25	25	58	59	60	53	46	50	51	50	45	43			150.4	296.2	50	37
San Diego, Cal.....	P.			43	43	58	61	69	76	82	84	84	81	58	50			208.8	307.8	68	66
San Francisco, Cal.....	T.			0	25	51	67	80	86	92	91	86	81	66	30			208.6	302.4	69	62
Santa Fe, N. Mex.....	P.			53	67	74	81	80	82	78	80	74	73	66	55			225.1	306.8	74	62
Savannah, Ga.....	P.			40	39	52	60	60	60	61	60	61	59	49	51			171.3	309.7	55	51
Seattle, Wash.....	P.			7	24	25	49	47	50	56	54	52	51	28	17			122.7	287.5	43	30
Spokane, Wash.....	P.			35	24	43	50	49	55	59	56	51	44	30	15			130.8	287.4	46	36
Tucson, Ariz.....	P.			82	79	85	85	88	88	77	81	78	75	64	56			241.9	309.0	78	64
Vicksburg, Miss.....	P.			26	25	40	48	52	54	55	54	52	48	34	28			137.8	309.2	45	42
Washington, D. C.....	T.			60	55	60	70	75	75	78	76	74	58	59	60			303.1	300.7	68	61
Wilmington, N. C.....	T.			31	34	49	56	59	71	64	62	60	60	55	46			171.0	306.8	56	57

* All values for 19 days only.

TABLE XII.—Hourly precipitation, February, 1895.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Total.
Boston, Mass.....	0.06	0.05	0.08	0.08	0.17	0.21	0.01	T.	T.	T.	0.04	0.06	0.07	0.04	0.03	0.01	0.01	T.	T.	T.	0.04	0.07	0.07	0.07	1.11
Buffalo, N. Y.....	0.09	0.06	0.04	0.04	0.04	0.06	0.07	0.04	0.05	0.05	0.05	0.05	0.07	0.06	0.03	0.03	0.04	0.05	0.11	0.08	0.08	0.07	0.08	0.12	1.46
Galveston, Tex. *.....	0.08	0.05	0.07	0.08	0.11	0.10	0.12	0.20	0.23	0.19	0.17	0.32	0.76	0.34	0.26	0.16	0.32	0.39	0.20	0.09	0.19	0.36	0.12	0.08	5.10
Jacksonville, Fla.....	0.26	0.23	0.34	0.33	0.07	0.45	0.09	0.05	0.03	0.05	0.02	0.04	0.07	0.30	0.34	0.11	0.06	0.13	0.06	0.10	0.08	0.15	0.37	0.18	3.61
Jupiter, Fla.....	0.07	0.04	0.06	0.10	0.04	0.08	0.13	0.56	0.39	0.21	0.15	0.20	0.08	0.14	0.19	0.04	0.02	0.04	0.01	0.01	0.03	0.01	0.02	0.13	2.75
Key West, Fla.....	0.01	0.01	0.09	0.00	0.00	0.00	0.03	0.39	0.88	0.16	0.11	0.02	T.	T.	0.02	0.02	0.12	0.14	0.10	0.19	0.04	0.03	0.02	0.18	2.02
Little Rock, Ark.*.....	0.04	0.04	0.00	0.00	0.00	0.00	0.04	0.13	0.08	0.01	0.02	0.02	0.03	0.03	0.02	0.02	0.01	0.01	0.01	T.	T.	0.02	0.07	0.03	0.63
Memphis, Tenn.....	0.05	0.05	0.04	0.00	0.02	0.02	0.04	0.34	0.08	0.06	0.14	0.03	0.05	0.05	0.05	0.05	0.09	0.03	0.01	0.01	0.06	0.06	0.06	0.06	1.39
New Orleans, La. *.....	0.22	0.17	0.28	0.07	0.06	0.10	0.14	0.17	0.07	0.12	0.11	0.16	0.13	0.12	0.17	0.17	0.35	0.32	0.32	0.25	0.13	0.12	0.09	0.06	3.90
New York, N. Y.....	0.01	T.	T.	T.	T.	T.	0.01	0.03	0.04	0.03	0.06	0.04	0.06	0.02	T.	0.01	0.01	0.01	0.12	0.17	0.10	0.01	T.	0.01	0.74
Portland, Oreg.....	0.14	0.11	0.03	0.01	0.01	T.	0.05	0.03	0.05	0.05	0.05	0.03	0.00	0.00	0.00	T.	0.05	0.02	T.	0.02	0.08	0.11	0.09	0.08	1.01
St. Louis, Mo.....	T.	0.01	0.01	0.01	0.01	0.02	0.04	0.02	T.	T.	0.01	T.	T.	T.	0.02	0.02	0.03	0.03	0.05	0.03	0.01	0.02	0.02	0.02	0.43
St. Paul, Minn.*.....	0.01	0.01	0.02	0.02	0.03	0.01	0.01	0.01	0.03	0.01	0.01	T.	0.01	0.03	T.	0.01	0.11	0.01	0.06	0.02	0.01	0.01	0.01	0.01	0.46
San Diego, Cal.....	0.03	0.04	0.00	0.00	0.03	0.02	0.01	0.01	T.	0.01	0.00	0.00	0.00	0.06	0.09	0.07	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.01	0.51
San Francisco, Cal.....	0.11	0.10	0.12	0.21	0.10	0.09	0.08	0.09	0.11	0.24	0.21	0.09	0.05	0.07	0.04	0.04	0.04	0.08	0.08	0.09	0.02	0.05	0.06	0.06	2.33
Savannah, Ga.....	0.16	0.13	0.28	0.37	0.37	0.10	0.15	0.08	0.07	0.05	0.06	0.07	0.05	0.04	0.06	0.07	0.02	0.06	0.05	0.19	0.37	0.30	0.32	0.46	3.78
Seattle, Wash.....	0.15	0.12	0.17	0.06	0.08	0.04	0.02	0.02	0.06	0.05	0.03	0.04	0.03	0.02	0.01	0.01	0.06	0.06	0.07	0.08	0.05	0.15	0.15	0.10	1.75
Vicksburg, Miss.....	0.05	0.03	0.04	0.02	T.	0.02	0.02	0.03	0.05	0.05	0.05	0.21	0.08	0.03	0.02	0.02	0.07	0.08	0.16	0.13	0.18	0.10	0.11	0.15	1.70
Washington, D. C.....	0.02	T.	0.02	0.06	0.03	0.04	0.05	0.06	0.07	0.04	0.06	0.04	0.02	0.01	0.02	0.07	0.06	0.06	0.04	0.04	0.02	0.02	0.01	0.01	0.88
Wilmington, N. C.....	0.11	0.50	0.11	0.21	0.04	0.04	0.03	0.14	0.07	0.08	0.10	0.06	0.01	0.04	0.07	0.19	0.13	0.03	0.02	0.07	0.06	0.11	0.11	0.04	2.84

TABLE XIII.—Excessive precipitation, by stations, for February, 1895.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>California.</i>						
Bear Valley.....	<i>Inches.</i>	<i>Inches.</i>		<i>Ins.</i>	<i>A. m.</i>	
Chicago Park.....		2.90	11			
Fordyce Dam.....		4.25	10-11			
Georgetown.....	12.55	6.84	11-12			
Iowa Hill.....		4.70	12			
Jackson.....		3.24	11-12			
Kennedy Gold Mine.....		2.58	11			
Malakoff Mine.....		3.47	11-12			
Mariposa.....		2.50	11-12			
Mokelumne Hill.....		3.73	11			
Oleta.....		2.79	11			
Pilot Creek.....		3.00	12			
Placerville.....		4.22	12			
Santa Cruz.....		2.51	12			
Shasta Springs.....		2.52	11			
Summerdale.....		2.50	25			
Upper Mattole.....		3.45	12			
West Point.....		5.86	11-12			
Wire Bridge.....		3.93	12			
		2.86	11			
<i>Florida.</i>						
Brooksville.....				1.07	0 30	7
Key West.....				1.06	1 00	7
Titusville.....		2.64	15			
<i>Georgia.</i>						
Hephzibah.....		2.50	19			
<i>Kansas.</i>						
Garfield.....		3.13	25-26			
Pleasant Dale.....		2.58	25-26			
Quinter.....		2.50	25			
<i>Louisiana.</i>						
Franklin.....		3.00	11			
Joanette.....		3.40	9-10			
Paincourtville.....		2.69	10-11			
<i>Mississippi.</i>						
Bay St. Louis.....		3.90	10			
<i>Oklahoma.</i>						
Buffalo.....		3.00	25-26			
<i>Texas.</i>						
Devine.....		4.75	27-28			
Fort Clark.....		2.65	26-27			
Huntsville.....		2.50	5			
Mount Blanco.....		3.08	26-27			
San Antonio.....		2.60	27-28			
<i>Washington.</i>						
Neah Bay.....	10.37					

TABLE XIV.—Maximum rainfall in one hour or less, February, 1895.

Stations.	Maximum rainfall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
	Inch.		Inch.		Inch.	
Atlanta, Ga.*						
Baltimore, Md.*						
Bismarck, N. Dak.*						
Boston, Mass.	0.06	8	0.06	8	0.21	8
Buffalo, N. Y.	0.01	8	0.02	8	0.04	8
Chicago, Ill.*						
Cincinnati, Ohio*						
Cleveland, Ohio*						
Denver, Colo.*						
Detroit, Mich.*						
Dodge City, Kans.*						
Duluth, Minn.*						
Eastport, Me.*						
Galveston, Tex.*	0.12	1	0.23	1	0.76	1
Indianapolis, Ind.*						
Jacksonville, Fla.	0.18	2	0.28	2	0.43	2
Jupiter, Fla.	0.42	15	0.53	15	0.68	15
Kansas City, Mo.*						
Key West, Fla.	0.25	7	0.40	7	1.06	7
Little Rock, Ark.*	0.02	22	0.04	22	0.15	22
Louisville, Ky.*						
Marquette, Mich.*						
Memphis, Tenn.*	0.07	22	0.12	22	0.30	22
Milwaukee, Wis.*						
Nantucket, Mass.*						
Nashville, Tenn.*						
New Orleans, La.	0.08	1	0.13	1	0.30	11
New York, N. Y.	0.08	7	0.04	7	0.17	7
Norfolk, Va.*						
Omaha, Nebr.*						
Philadelphia, Pa.*						
Portland, Me.*						
Portland, Oreg.	0.01	15	0.02	15	0.06	15
Rochester, N. Y.*						
St. Louis, Mo.*						
St. Paul, Minn.*						
Salt Lake City, Utah*						
San Diego, Cal.	0.06	9	0.06	9	0.15	9
San Francisco, Cal.	0.03	11	0.05	11	0.15	12
Savannah, Ga.	0.10	2	0.15	2	0.40	2
Seattle, Wash.*	0.08	22	0.06	22	0.12	15
Vicksburg, Miss.*	0.07	22	0.11	22	0.30	22
Washington, D. C.	0.02	7	0.03	7	0.08	7
Wilmington, N. C.*	0.15	2	0.36	2	0.46	2

* Record incomplete on account of snowfall.

† Less than 0.05 in 1 hour.

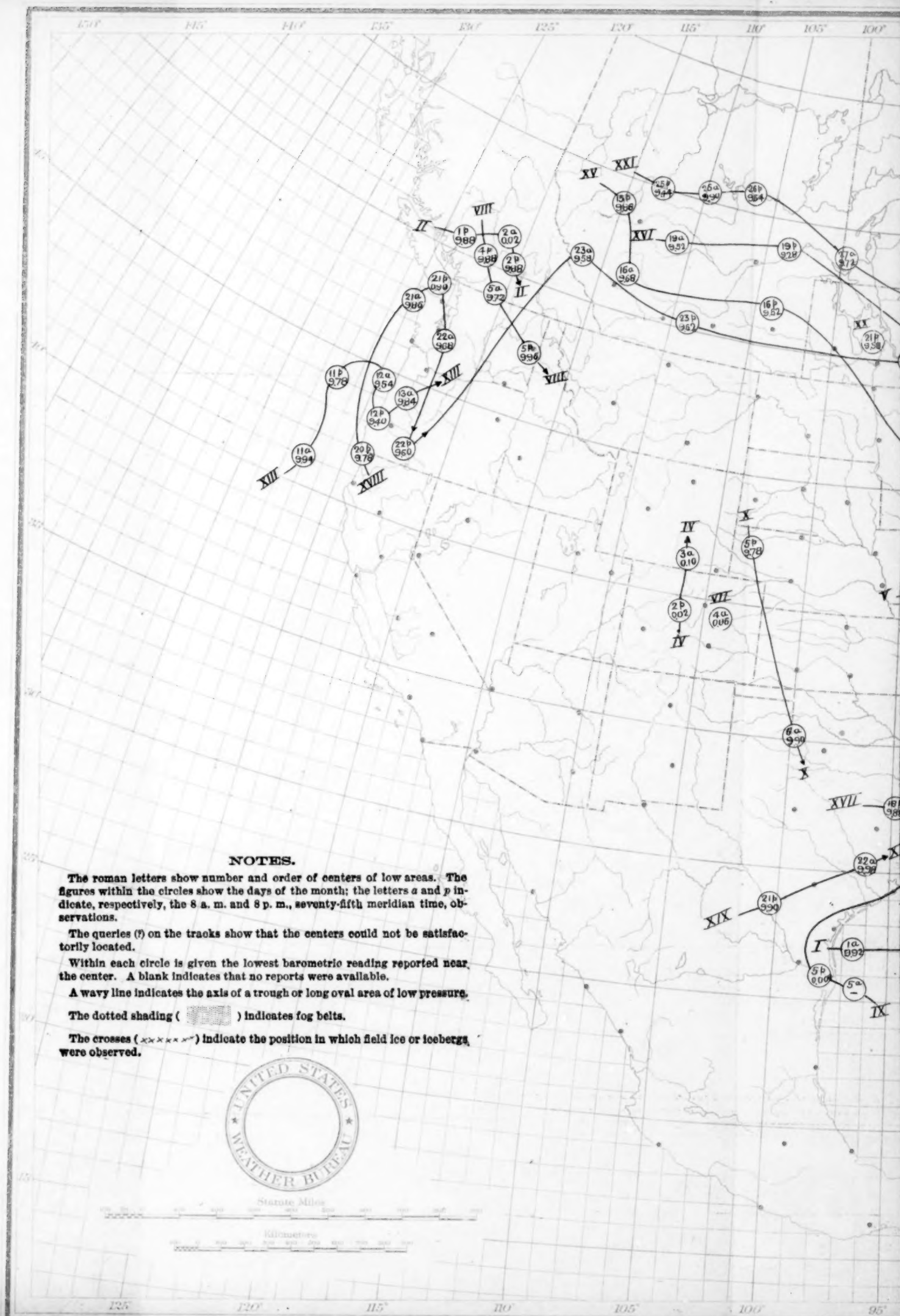


Chart I. Tracks of Centers of Low Areas. February, 1896.

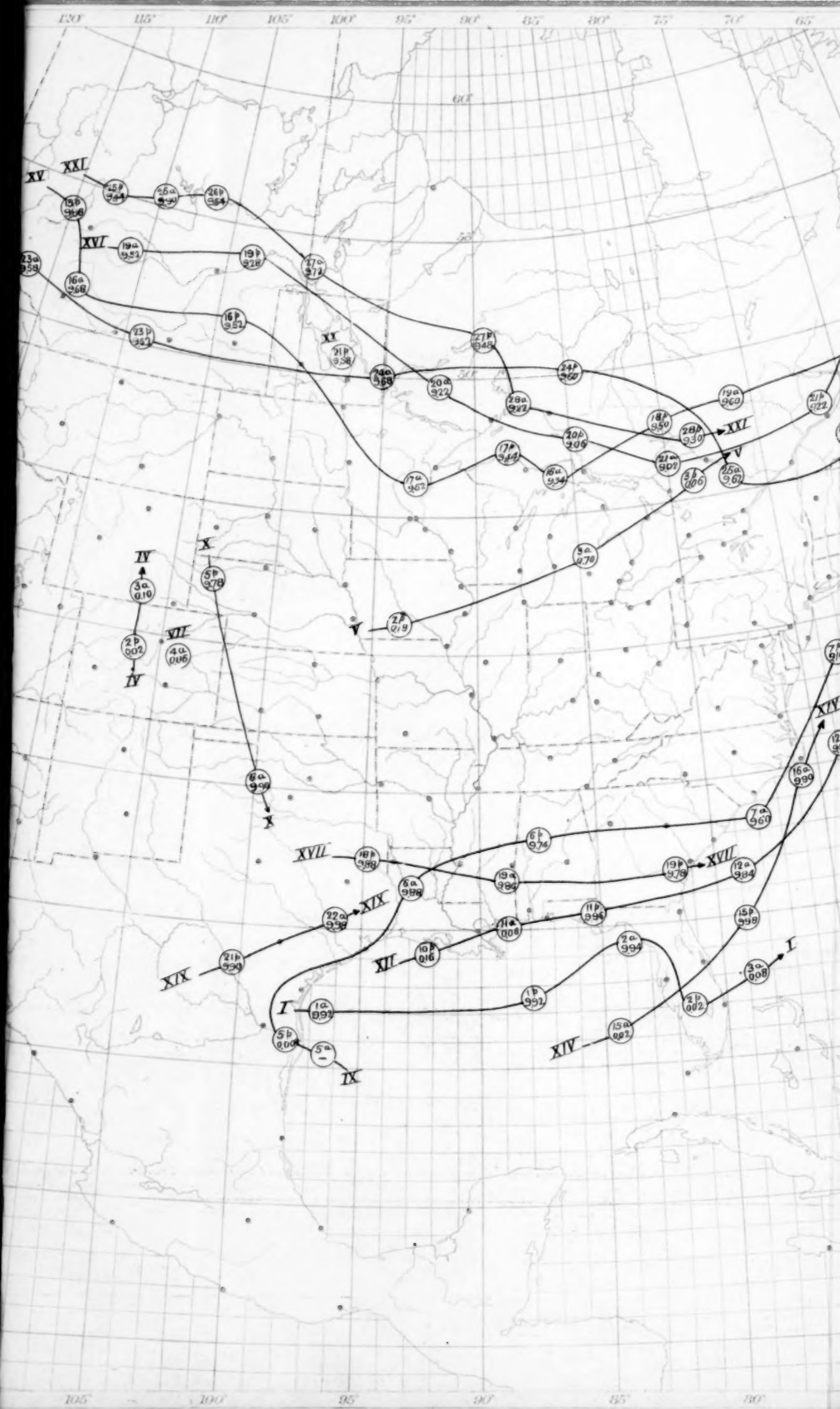




Chart II. Isobars, Isotherms, and Resultant Winds. February, 1895.

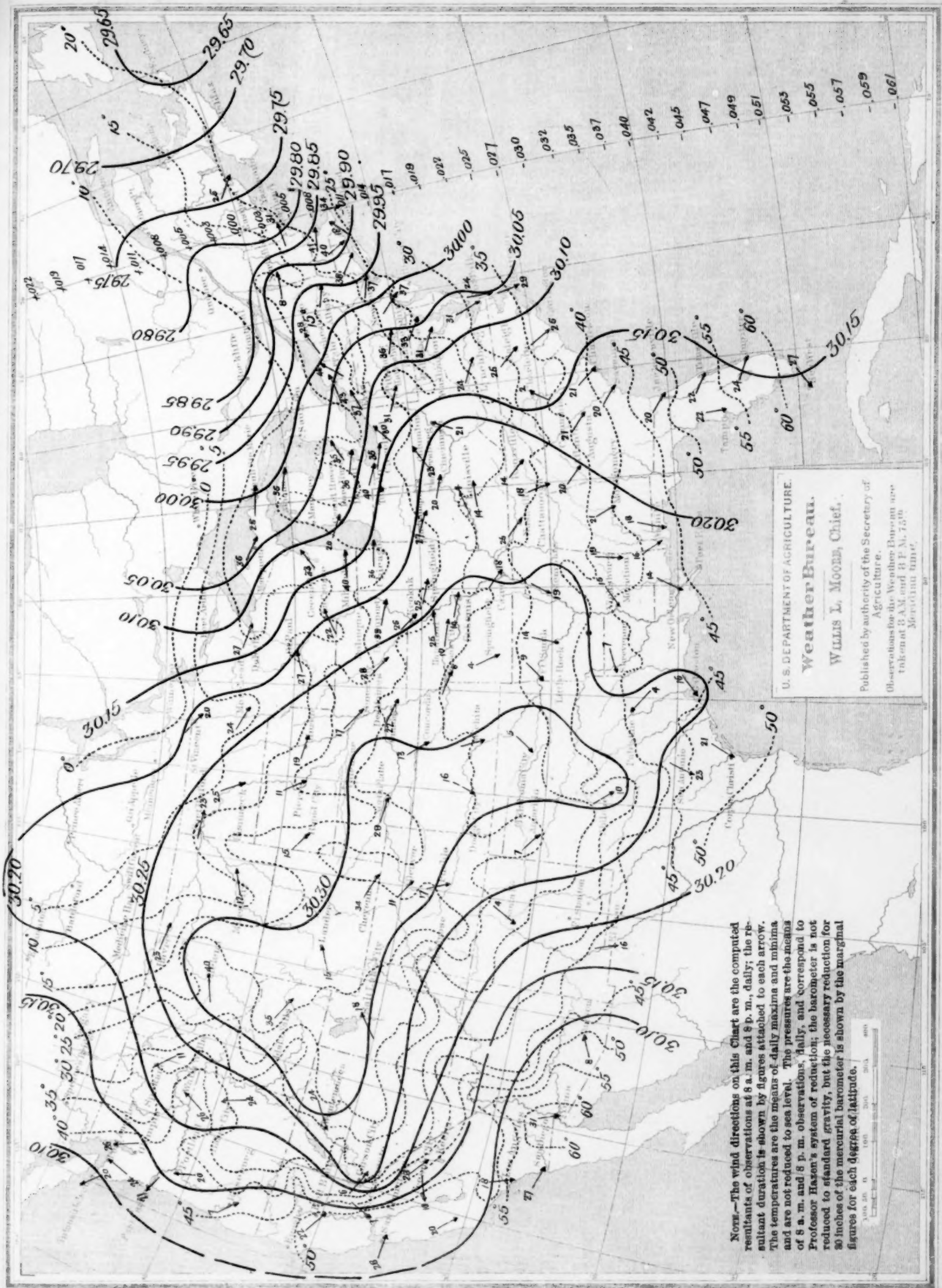


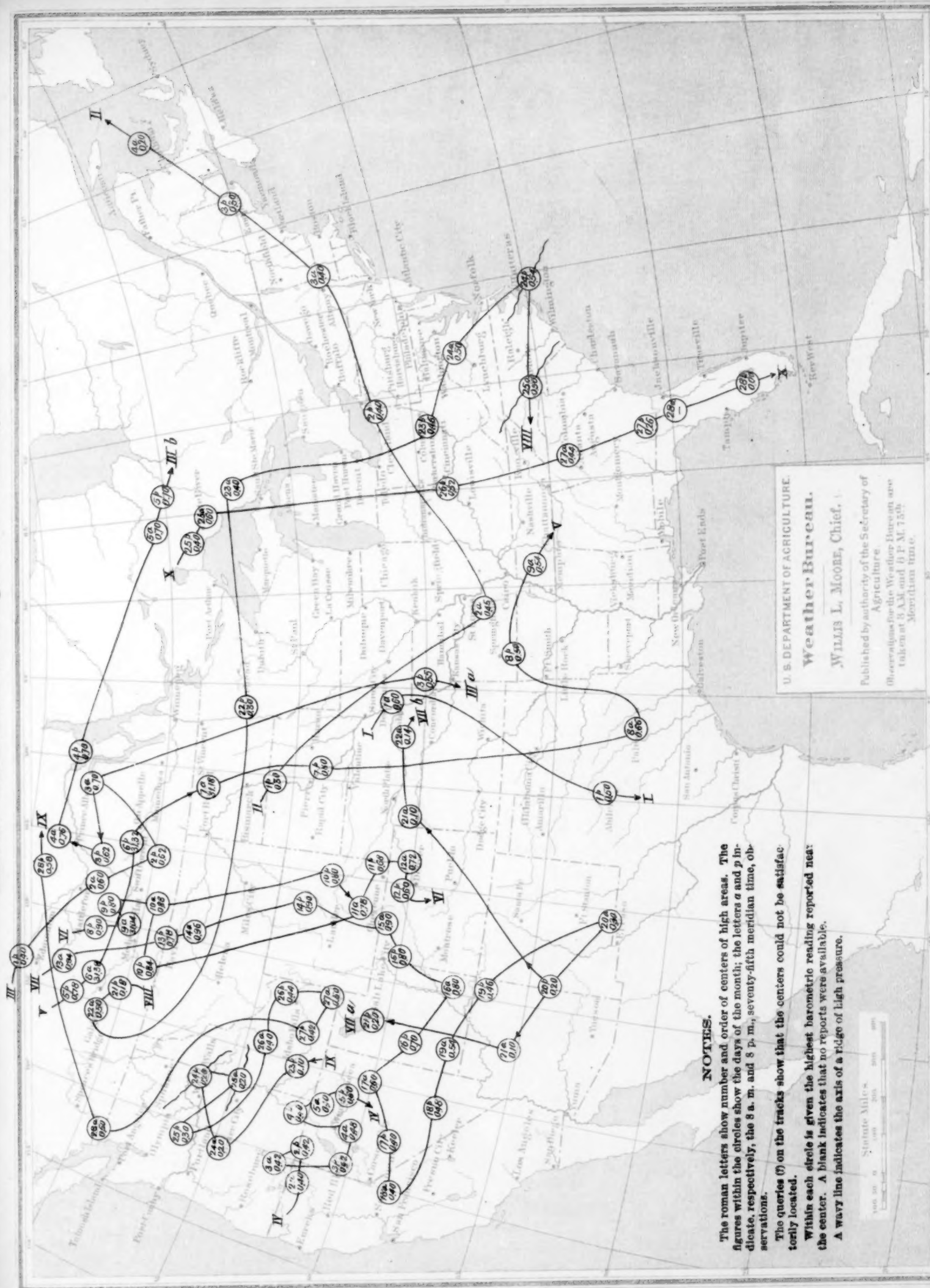


Chart III. Total Precipitation. February, 1895.





Chart IV. Tracks of Centers of High Areas. February, 1895.



NOTES.

The roman letters show number and order of centers of high areas. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the 8 a. m. and 8 p. m., seventy-fifth meridian time, observations.

The queries (?) on the tracks show that the centers could not be satisfactorily located.

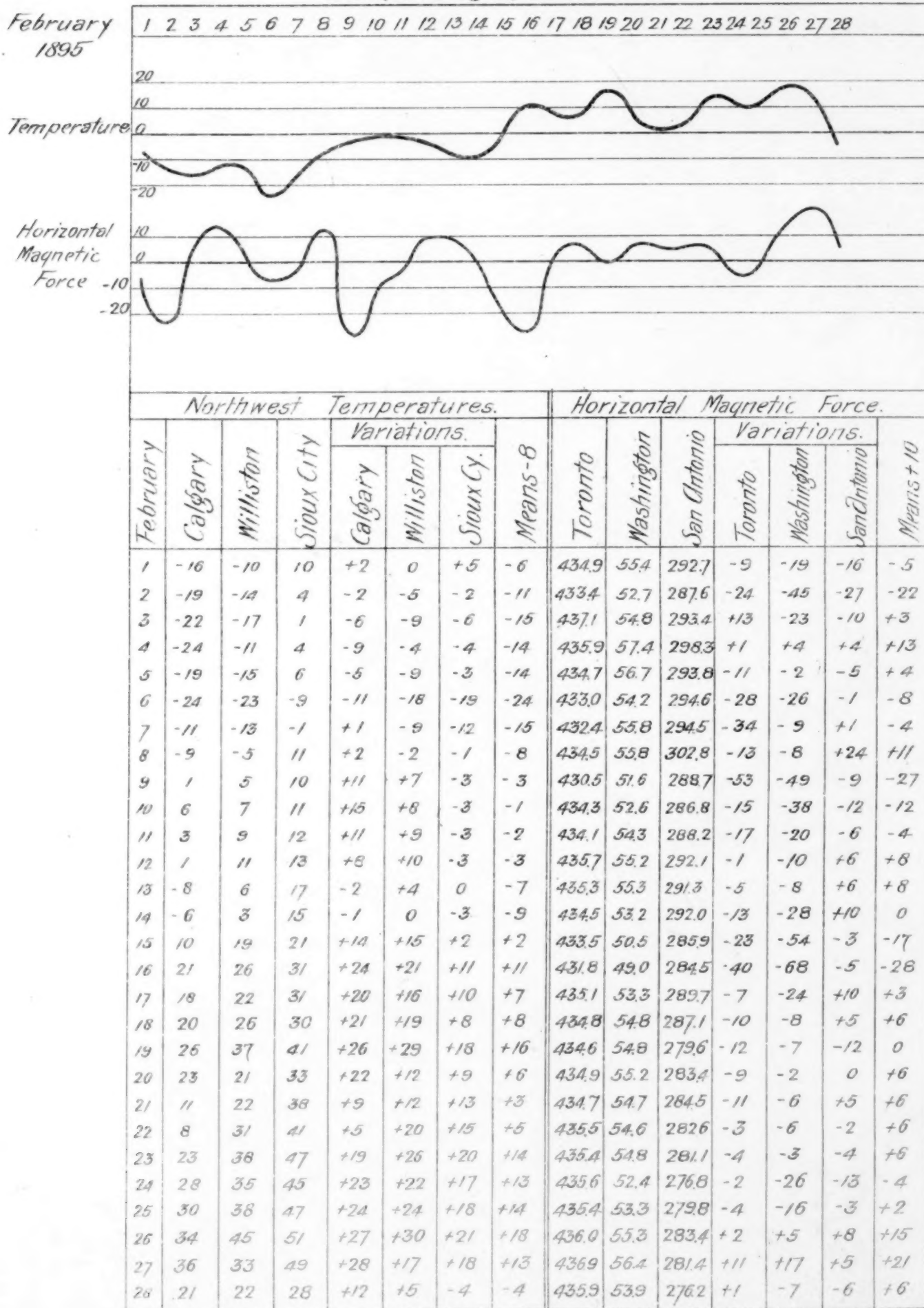
Within each circle is given the highest barometric reading reported near the center. A blank indicates that no reports were available.

A wavy line indicates the axis of a ridge of high pressure.

U. S. DEPARTMENT OF AGRICULTURE.
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Chart V. Relative variations of the Northwest Temperatures and the Horizontal Magnetic Force at Toronto, Washington, and San Antonio.

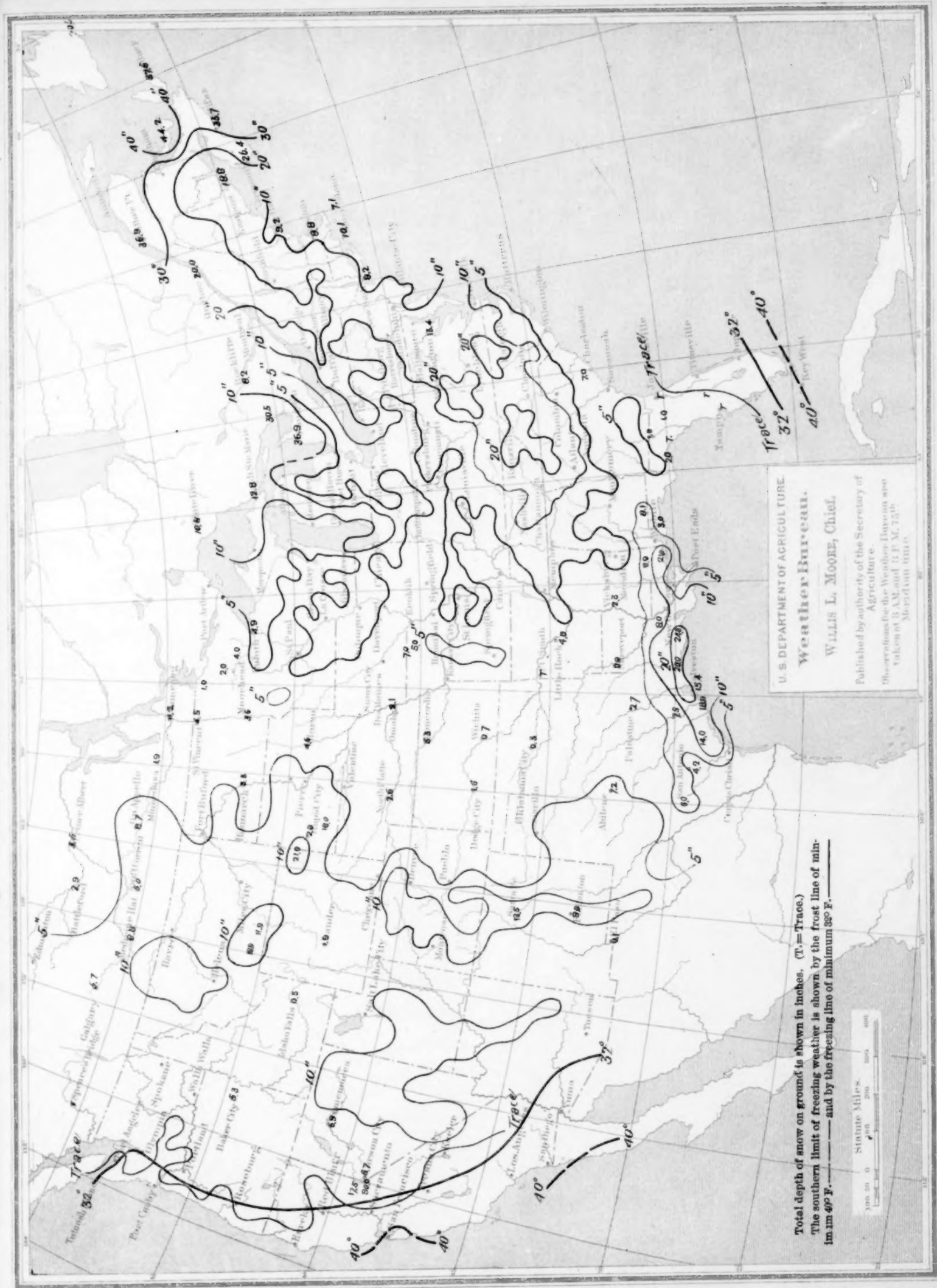


20 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000



DATE	TIME	TEMPERATURE	WIND DIRECTION	WIND FORCE	WEATHER	REMARKS
1905	1	100	100	100	100	100
1905	2	100	100	100	100	100
1905	3	100	100	100	100	100
1905	4	100	100	100	100	100
1905	5	100	100	100	100	100
1905	6	100	100	100	100	100
1905	7	100	100	100	100	100
1905	8	100	100	100	100	100
1905	9	100	100	100	100	100
1905	10	100	100	100	100	100
1905	11	100	100	100	100	100
1905	12	100	100	100	100	100
1905	13	100	100	100	100	100
1905	14	100	100	100	100	100
1905	15	100	100	100	100	100
1905	16	100	100	100	100	100
1905	17	100	100	100	100	100
1905	18	100	100	100	100	100
1905	19	100	100	100	100	100
1905	20	100	100	100	100	100
1905	21	100	100	100	100	100
1905	22	100	100	100	100	100
1905	23	100	100	100	100	100
1905	24	100	100	100	100	100
1905	25	100	100	100	100	100
1905	26	100	100	100	100	100
1905	27	100	100	100	100	100
1905	28	100	100	100	100	100
1905	29	100	100	100	100	100
1905	30	100	100	100	100	100
1905	31	100	100	100	100	100
1905	32	100	100	100	100	100
1905	33	100	100	100	100	100
1905	34	100	100	100	100	100
1905	35	100	100	100	100	100
1905	36	100	100	100	100	100
1905	37	100	100	100	100	100
1905	38	100	100	100	100	100
1905	39	100	100	100	100	100
1905	40	100	100	100	100	100
1905	41	100	100	100	100	100
1905	42	100	100	100	100	100
1905	43	100	100	100	100	100
1905	44	100	100	100	100	100
1905	45	100	100	100	100	100
1905	46	100	100	100	100	100
1905	47	100	100	100	100	100
1905	48	100	100	100	100	100
1905	49	100	100	100	100	100
1905	50	100	100	100	100	100
1905	51	100	100	100	100	100
1905	52	100	100	100	100	100
1905	53	100	100	100	100	100
1905	54	100	100	100	100	100
1905	55	100	100	100	100	100
1905	56	100	100	100	100	100
1905	57	100	100	100	100	100
1905	58	100	100	100	100	100
1905	59	100	100	100	100	100
1905	60	100	100	100	100	100
1905	61	100	100	100	100	100
1905	62	100	100	100	100	100
1905	63	100	100	100	100	100
1905	64	100	100	100	100	100
1905	65	100	100	100	100	100
1905	66	100	100	100	100	100
1905	67	100	100	100	100	100
1905	68	100	100	100	100	100
1905	69	100	100	100	100	100
1905	70	100	100	100	100	100
1905	71	100	100	100	100	100
1905	72	100	100	100	100	100
1905	73	100	100	100	100	100
1905	74	100	100	100	100	100
1905	75	100	100	100	100	100
1905	76	100	100	100	100	100
1905	77	100	100	100	100	100
1905	78	100	100	100	100	100
1905	79	100	100	100	100	100
1905	80	100	100	100	100	100
1905	81	100	100	100	100	100
1905	82	100	100	100	100	100
1905	83	100	100	100	100	100
1905	84	100	100	100	100	100
1905	85	100	100	100	100	100
1905	86	100	100	100	100	100
1905	87	100	100	100	100	100
1905	88	100	100	100	100	100
1905	89	100	100	100	100	100
1905	90	100	100	100	100	100
1905	91	100	100	100	100	100
1905	92	100	100	100	100	100
1905	93	100	100	100	100	100
1905	94	100	100	100	100	100
1905	95	100	100	100	100	100
1905	96	100	100	100	100	100
1905	97	100	100	100	100	100
1905	98	100	100	100	100	100
1905	99	100	100	100	100	100
1905	100	100	100	100	100	100

Chart VI. Depth of Snowfall and Limits of Freezing Weather. February, 1905.



Total depth of snow on ground is shown in inches. (T = Trace.)
The southern limit of freezing weather is shown by the frost line of minimum 40° F. ——— and by the freezing line of minimum 32° F. - - - - -

U.S. DEPARTMENT OF AGRICULTURE.
Weather Bureau.
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Chart VII. Depth of Snow lying on ground February 28, 1895.

